

THE PHONOLOGY OF THE GRAMMATICAL CONSTITUENTS
OF VERBAL-PHRASE WORDS IN SPOKEN TIBETAN
(LHASA DIALECT)

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Abstract

The thesis is a study of certain phonetic, phonological, and grammatical aspects of the Lhasa dialect of Tibetan as spoken by Rinzin Wangpo. For this purpose such phonetic criteria as there are for distinguishing Words are first stated; after which, the Phrase unit is distinguished. Criteria are adduced for distinguishing those grammatical categories, (Verb, Verbal Particle) which supply the characteristic grammatical constituents of Words comprised in the Verbal Phrase. All lexical items that can be classified as Verb-constituent (or Verb) lexical items, and as Verbal-Particle-constituent (or Verbal-Particle) lexical items are then subjected to phonological analysis: they are classified prosodically in accordance with the prosodic types of Word or Piece in which each can be exemplified; and then such of the phonetic data as remain to be accounted for after the prosodic analysis has been completed are stated as exponents of terms in phonematic systems. The thesis is, therefore, restricted to the Verbal Phrase, except that, where Verb-constituent lexical items are exemplifiable in the Noun Phrase, (in Nominalized forms and in certain disyllabic Nouns), it is necessary, in order that the phonetic and phonological description of these lexical items shall be complete, to go outside the Verbal Phrase.

0: INTRODUCTORY

The aim of this thesis is to give a phonological description of one of the dialects of contemporary spoken Tibetan within the framework provided by the categories that have been established in order to deal with the Grammatical Constituents of Words in that dialect. The dialect chosen for this purpose is the Lhasa Dialect, or Lhasa Tibetan (LT);¹ and the description is based on utterances in it of Rinzin Wangpo (rig-'dzin dbang-po) (R.).²

¹ Grounds for the use of the term 'Lhasa Dialect' are given at p.9.

² For the transliteration used in this thesis see App. I, pp. 665-8.

01. Rinzin Wangpo

R. was employed as a Research Assistant by the School of Oriental and African Studies for the period November, 1948 -- August, 1949, in London, and for the further period October, 1949 -- March, 1950 in Kalimpong, West Bengal. His family background and life history are as follows: He was born in Lhasa in 1920 (lears-spre). His father, who was from northern Tibet, died before R. was born; and he was brought up by his mother and grandmother, both of them being of Lhasa, in Lhasa itself. In 1930 R. was sent to the school of snang-shag em-drung rig-'dzin lhun-'grub dnal-'byor lags at smon-grub shar for two years; and, subsequently, after a year as a monk at gnas-chung grwa-tshang, returned to school, at nyag-rong shar, for a further three years. He left it in 1935 having reached the rgan-bdag class, and become head boy (rgan-mgo). There followed two years in the service of the sku-nro bla-phvag, after which he studied Tibetan painting for a month or two. Then, leaving Lhasa, he combined a pilgrimage in Tsang Province with a visit to relatives in Kalimpong, where he stayed about a year. On his return to Lhasa he taught for about a month in the Chinese Government School, and then spent about a year as a clerk in the Treasury at Norbu Lingka. Early in 1943 he began a five-year course of study that included the Tibetan grammatical works

known as the sum-rtags, as the pupil of a well-known Tibetan scholar, tsha-sprul rin-po che. On completing the course, in 1947, he went a second time to Kalimpong; and, until he left for the United Kingdom (November, 1948), remained there helping his uncle, the Rev. G. Tharchin, with publishing the Tibetan Newspaper, yul-phyogs so-so'i gsar-'gyur me-long.¹

From this account of his education it will be seen that not only was R. literate in Tibetan but he was also a scholar in the fields of traditional Tibetan grammar and orthography.

In addition to LT, R. claimed some knowledge of a dialect of western Tibet (his uncle, the Rev. Mr. Tharchin, was from Western Tibet); he also spoke a little Hindi, could read a little Chinese, and in the course of his ten-month stay in the United Kingdom learnt a little English; but this thesis does not of course deal with his non-Tibetan utterances; nor does it deal with utterances in which he attempted to give examples of the pronunciation of Tibetan dialects other than the Lhasa (i.e. those of

¹ A detailed account has been given of R.'s education and of his visits to Kalimpong because of an erroneous published statement that he was at school not in Lhasa but in Kalimpong, and that he therefore spoke not LT but some other Tibetan dialect (see R. Miller, 'The Independent Status of the Lhasa Dialect in Spoken Tibetan', *Tōhōgaku* 10, 1955, 142).

western Tibet and of the Tsang province of central Tibet).

22. The Three Provinces (12)

02. The Lhasa Dialect (LT)

The use of the term 'Lhasa Dialect' for the dialect spoken by R. requires some justification: it may be that the Tibetan spoken in Lhasa is not distinguishable from the Tibetan spoken in U (dbus) Province, the province in which Lhasa is situated; in which case it would perhaps be preferable to substitute the term 'U Dialect' (dbus-skad) for 'Lhasa Dialect' in the title of this thesis.¹ R. however claimed to be able to recognize a difference between the U Dialect, as spoken by my servant, Thubden, whose home was about twenty miles from Lhasa, and the dialect spoken by himself and Lhasa residents generally (lhas-sa rang-gi skad).² There is therefore some slight evidence in

¹ The Tibetan spoken in Lhasa is ascribed to the U Dialect by the following: George N. Roerich and Tse-trung Lopsang Phuntshok, Textbook of Colloquial Tibetan, Government of West Bengal, 1957, v; Herbert Hannah, A Grammar of the Tibetan Language, Calcutta, 1912, vi.

² The Tibetan of Lhasa is regarded as a distinct dialect by the following: R. Miller, 'The Independent Status of the Lhasa Dialect', Tōhōgaku, 10, 1955, 144-130; Tsewang Y. Pemba, Young Days in Tibet, London, 1957, 76 ' - - - chattering away in their Lhasa accent, the "Oxford Accent" of Tibet'; Sir Basil Gould, C.M.G., C.I.E., and Hugh Edward Richardson, Tibetan Word Book, O.U.P., 1943, ix-x; Chin P'eng, 'Verbal Inflexion in Classical Tibetan and Present-day Lhasa Dialect', Linguistic Researches, 1, Peking, 1956, 169-221; id. Tsang-vü la-sa Jih-k'o-tse Ch'ang-t'u hua-ti pi-chiao yen-chiu, Peking, 1958.

favour of drawing a distinction between the Tibetan of Lhasa and the Tibetan of U; and further, since R.'s Tibetan was unquestionably of the type spoken in Lhasa, whether distinguished from the Tibetan of the rest of the province or not, it has seemed safer to refer to it as the Lhasa Dialect or as Lhasa Tibetan (LT).

Terms such as 'Central Tibetan' and 'dialect of Central Tibet',¹ which have been used to cover the Tibetan spoken in the two provinces of U and Tsang, have been rejected: by the end of three weeks' residence in Gyantse (May, 1950) I was easily able to distinguish the Tsang Dialect, as spoken there, from R.'s Tibetan; and it was clear that statements made for e.g. the Tsang Tibetan of Gyantse at the phonetic, phonological, and grammatical levels² would not be consistent with the statements made

¹ For these terms see H.A. Jäschke, Tibetan-English Dictionary, London, 1934, x, xv; see also C.A. Bell, C.M.G., C.I.E., Grammar of Colloquial Tibetan, 3rd. ed., Alipore 1939, vi.

² For the theory of levels of linguistic analysis see J.R. Firth, 'Technique of Semantics', Transactions of the Philological Society, (TPS), 1935, 53-72, and Firth's subsequent publications (Papers in linguistics, 1934-1951 O.U.P., 1957).

below at these levels for R.'s dialect.¹ Utterances, for example, such as **la be:**² (LT **la re:**, la red), 'yes, it is', **la mo:be:** (LT **la mare**, la ma-red), 'no, it is not', and the use of a Verbal Particle **le** in polite-style utterances, e.g; **nangilejə:ne** (LT **nangijə:ne**, gnang-gi-yod-na, 'is he making'), enabled me to identify

¹ As far as the Tibetan of Gyantse and Lhasa are concerned therefore, it would not be possible to satisfy the conditions proposed by W.S. Allen for treating composite material as a single corpus (W.S. Allen, 'Aspiration in the Harauti Nominal', Studies in Linguistic Analysis, Oxford, 1957, 68-87). This objection, that the Tibetan of Lhasa (and probably also that of U) is too different from that of Tsang for common phonological and grammatical statement, applies equally to the title of the Rev. P.M. Miller's article, 'The Phonemes of Tibetan (U-Tsang Dialect) with a practical romanized orthography for Tibetan-speaking readers' (Journal of the Asiatic Society, Letters, XVII, 1951, No.3, 191-216); but Miller's examples, the title notwithstanding, are consistent with R.'s dialect and inconsistent both with my own experience of the Tsang Dialect in Gyantse, with the specimen of Tsang Dialect published by Roerich and Lopsang (Textbook, 167-70), and with Chin P'eng (Tsang-yü). Miller's informant, though born in Shigatse (Tsang Province), would seem therefore to have suppressed his native dialect in favour of the Tibetan of Lhasa.

² For the phonetic transcription, indicated by red ink, see Appendix I (pp. 669-71).

Tsang-Dialect speakers both in Gyantse and elsewhere.¹

LT differs from other Tibetan dialects in that it is unquestionably the prestige dialect of Tibet.² In particular it is associated with the Official (sku-drag) class, and therefore with the nobility. Many noble families have houses in Lhasa, and are educated there. By no means all of the Monk Officials are members of the noble houses; but many will nevertheless have spent some years at one or other of the Lhasa monasteries, and will have discarded their local dialects for LT. LT is thus to be heard in all districts under Tibetan administration; and people who regularly speak some other dialect nevertheless understand it, and will attempt to speak it should circumstances require them to do so. Even beyond the frontiers of Tibet in the parts of Nepal inhabited by people of Tibetan stock, including

¹ My recollections of the Tibetan of Gyantse are in exact agreement with the specimen of Tsang Dialect referred to above (Roerich and Lopsang, Textbook, 167-70). The most recent work to deal with the Lhasa and Shigatse dialects (Chin P'êng, Tsang-yü La-sa Jih-k'o-tse Ch'ang-t'u hua-ti pi-chiao yen-chiu) amply illustrates the impossibility of making identical phonetic, phonological, and grammatical statements for Tibetan of Lhasa (U) and Shigatse (Tsang).

² Pemba, Young Days, 76: ' - - - chattering away in their Lhasa accent, the "Oxford Accent" of Tibet'; Bell, Grammar, vi: ' - - - it was necessary to select the dialect most widely spoken, and that of Lhasa has been chosen accordingly. It is not only the dialect of the Central Province but may be said to be also the lingua franca of the whole of Tibet. It is more generally spoken than any other, and is recognised as the most correct form of speech by all.'

the Sherpas, LT is widely understood, especially by monks, and often attempted. To cite my own experience, I have heard it used on occasions by the local people of Gangtok (Sikkim), Yatung (Chumbi Province), Phari, and Gyantse (Tsang Province), by speakers of the Sikkim, Kham, and Ladakh dialects in Kalimpong (West Bengal), and by educated Sherpas at Namche Bazaar and Thyangboche (East No. 3, Nepal).

R. was not a nobleman; but he had attended the same school as members of the noble families.¹ With one exception Tibetans from Lhasa told me that he was a representative speaker of the Tibetan of Lhasa. This one exception thought that R.'s Tibetan had some Chinese characteristics. Others described his Tibetan as bookish; and R. himself claimed that in conversation with Tibetans of his own educational standing he made his LT utterances as much like Classical (or Literary) Tibetan as he could.

¹ For the Tibetan noble families see H.R.H. Prince Peter of Greece and Denmark, M.A., LL.D., F.R.A.I., The Aristocracy of Central Tibet, Kalimpong, 1954.

03. Reading and Spelling Styles

The thesis does not deal with all of R.'s utterances; and indeed certain of them have already been excluded from consideration here on the grounds that they are not in his native language or his native dialect (p. 6).

The material under study is now to be further restricted by the exclusion of others of R.'s utterances that, although native to him, are not in LT: his utterances in the Reading Style and the Spelling Style. The relations of these two styles to LT are quite different from the relations of e.g. the Tsang, Kham, or Sikkim dialects to it; for R. shares these two styles with literate speakers of these three dialects, and indeed with all literate Tibetans regardless of dialect or province of origin.

Considered briefly in the light of analysis in terms of Firth's theory of distinct but congruent levels (Situational, Grammatical, Phonetic, etc) R.'s utterances in the Spelling and Reading Styles may be distinguished from his LT utterances by such criteria as the following.¹

031. At the Situational Level one of the types of situation to which Spelling-Style utterances are appropriate is that in which children are taught reading and writing by making them chant in their correct order the names of the letters and parts of letters of which orthographic

¹ For Firth's theory of Levels of Analysis see p.10, note 2.

syllables are composed.¹ The participants will be children and a teacher, who may or may not be a monk; relevant objects will be bamboo pens and wooden slates smeared with charcoal or wax, and with examples written on them in one of the dbu-med scripts; a relevant place will be the courtyard of a house or monastery; a usual time for this sort of situation is the early morning before the first meal of the day. Spelling-Style utterances in this type of situation are not so much spoken as chanted, by the children and teacher in chorus or in unison.

Another type of situation appropriate to the Spelling Style and not uncommon is that in which homophonous words and syllables are identified by differences in spelling. The characteristics of this type of situation are less distinctive than those of the school type: the participants may be of any age after about seven years, though they must be at least partly literate; no details of time and place may be specified; chanting is not used.

¹ The main categories suggested for analysis at this level are: 'A. Relevant features of participants: persons, personalities (i) The Verbal Action of the Participants (ii) The Non-Verbal action of the Participants. B. Relevant Objects. C. The Effect of the Verbal Action' (J.R. Firth, 'Personality and Language in Society', Sociological Review, 1950, 43).

The Reading Style, on the other hand, is appropriate to those types of situation in which a book is present and the speaker reads aloud from it (he may be the sole participant); in which no book is present, but the speaker recites passages learnt by heart at some other time; or in which prayers are recited, whether originally learnt from a book or from oral instruction. This style may also be used in introductions, when people meeting for the first time tell each other their names; e.g. R. always used the Reading-Style pronunciation **wā:po** (**dbang-po**) for his own name, but by others he was sometimes referred to as **ʔɔŋbu**, or **ʔɔŋgu**.

There is one feature that both Reading and Spelling Styles have in common: they are in all cases directly or ultimately referable to written texts, and therefore, with rare exceptions, to Classical Tibetan (the spoken dialects, of Lhasa, Tsang, Ladakh, etc., have no recognized written form).¹

At the Situational Level R.'s LT utterances are best defined negatively as being appropriate to all types of situation other than those stated above for the Spelling

¹ The extent to which LT can be considered to be written is discussed at Appendix II (pp. 677-80).

and Reading Styles.

It is not only at the Situational Level that LT may be distinguished from the Reading and Spelling Styles: very different statements would need to ^{be} made for R.'s utterances in LT and in these two Styles at the Lexical, Grammatical, Phonological, and Phonetic Levels also.

032. At the Lexical Level the vocabulary statable for the Spelling Style considered in isolation from the Reading Style would be found to be very limited: it would comprise only the names given to letters, parts of letters, and combinations of letters; e.g. gsal-byed sum-cu, 'the thirty radicals'; ka, 'ka' [the first of the thirty radicals]; ga'u, 'little ga'; sa sla-btags, 'sa sla-joined.'

The collocability of these words would also be very limited, and their order in utterances fixed. The vocabulary of a Reading-Style utterance on the other hand would merely reflect the vocabulary of the written or printed text that was being read or quoted. Part of this vocabulary would be confined to, and would therefore provide criteria for, the Reading Style; but some items might be considered to be common to R.'s Reading-Style and LT utterances alike. It would not however follow that the collocability of any such 'common' items would be the same in both LT and Reading Style. The

following words might, for example, be cited as criteria at the Lexical Level for the Reading Style and LT:

Reading Style	LT	
<u>legs-pa</u>	<u>yag-po/yag-go</u>	'good'
<u>lam</u>	<u>phebs-lam, lam-ka</u>	'road'
<u>mdzad-pa</u>	<u>gnang-ba/gnang-nga</u>	'to do'

Some styles of LT have more in common lexically with the Reading Style than others: in literary discussions it was R.'s avowed aim to introduce into his LT utterances Classical-Tibetan lexical items; and this style of LT would therefore resemble the Reading Style more than some of his other LT styles, though even in other styles his use of items of vocabulary that would be by other LT-speakers be considered criteria of the Reading Style earned him the criticism that his LT was bookish. One such item was ha-cang, 'very', the usual LT form being zhedrag; c.f. also nang-du (LT nang-la), ma tshang-bzhin, (LT ma tshang-nas), sku-zhabs (LT sku-zhog), sngon-la (LT sngas-la).

From the standpoint of grammatical analysis it would not be possible to distinguish grammatical categories at all for Spelling-Style utterances considered in isolation from the Reading Style; the uniform grammatical behaviour of the words comprising such sentences as the following

would require that they all be classed together:

ka wasur ka:. ka wa-zur kwa 'ka wa-corner kwa'.

la lapta la:. la lha-btags lha 'la lha-joined lha'.

phau sa gapta ga rata dra chiku drik kha: sa: drik.

ba'u sa sga-btags bsga ra-btags bsgra gi-gu bsgrig ga
sa bsgrigs. 'little-ba sa sga-joined

bsga ra-joined bsgra gi-gu ['i' vowel] bsgrig ga sa bsgrigs'.

Grammatical categories would however need to be distinguished in an analysis confined to Reading-Style utterances; and these categories would be parallel to whatever categories were established for Classical Tibetan. Reading-Style grammatical categories might well be the same in number as LT grammatical categories (Verb, Noun, Adjective, etc.), with homonymous categories established by similar criteria though with a difference in detail; e.g. a type of formal scatter might be made a criterion of Verb categories in both LT and Reading Style; but the two-term formal scatter of the LT Verb with translation meaning 'send', based on ji:gi tang idu:, yi-ge btang/stong-gi-'dug, 'he sends a letter'; ji:gi t5:ʃi, yi-ge gtong-shig, 'send a letter', would contrast with a three-term Reading-Style formal scatter for the Verb 'send' (with a four-term orthographic scatter: gtong, btang, gtang, thong, of which btang and gtang are not phonetically distinguished).

LT and Reading Style would also differ in the membership of their homonymous categories: forms go/ngo/do/no/bo/'o/ro/lo/so/to and cing/zhing/shing would need to be recognized for Reading Style Tibetan, and assigned to the Verbal-Particle category; such a statement could not stand for LT too, except that it would be necessary to recognize, and assign to a Verbal Particle category, a form shing/zhing to account for such words as R.'s rather bookish byas-shing, 'therefore', 'which having been done', and ma tshang-shes [sic, for zhing], 'not having been completed'.

034. Phonetic and phonological analyses of R.'s Spelling- and Reading-Style utterances would give rise to different statements from those presented below for LT.¹ Either of

¹ Cf. also Yu Dawchyuan and Dr. Jaw Yuanrenn (Y.R. Chao), Love-songs of the Sixth Dalai Lama, Peiping, 1930, 198: 'The pronunciation recorded in this book does not represent the pronunciation used by Mr. blo-bzang-sang-rgyas in his ordinary speech. It is the habit of Tibetans - - - to pronounce a word in one way when used in the ordinary speech, and in another way when the word is read from a book. - - - in the following table, I give the transcription of those words as they are pronounced in ordinary speech.'

Similarly Bell, Grammar, vii-viii: 'Where the pronunciation of the literary and spoken form of a word is the same, the literary form alone is given, since the sole object of entering the spoken form is to show the exact pronunciation of the word.'

these styles may be identified, and distinguished from LT, by the phonetic criteria given in the following paragraphs.

0341. Such Word-final features as the following are characteristic of the Spelling-Style:

- I. dentality t n
- II. (velarity + nasality) ŋ
- III. laterality l̥l

e.g.

- I. pha naru phæ: tha: phæt' bod 'Tibet';
- II. khau da: na: dæn gdan 'mat';
- II. tʃha ʃɹb'cu tʃhun na: tʃhun chung 'small';
- III. thau na ʃɹb'cu ny̥l̥ la: ny̥l̥ angul 'silver'.²

Since the above three phonetic features are characteristic of the Spelling Style alone, they may be cited as criteria of that style.

¹ Foreign words have been excluded from these criteria; e.g. londrɔn, lon-don, 'London'; legdʒar, legs-sbyar, 'lecture'; juniyʌsi̯i:, yu-na-pa-si-tir, 'University'.

² I have followed Eugénie J.A. Henderson ('Prosodies in Siamese', Asia Major, 1, Pt. 2, 190) in using (') as a phonetic symbol for closure without plosion, i.e. a stop, as opposed to a plosive. There is no symbol for this feature in the I.P.A. chart.

As an example of a Word-initial criterion of the Spelling Style the following may be cited; though it does not apply to open-vowel, and half-open back-vowel, Syllables:¹

labiovelarity	w; e.g.	
thau wa ʃɔbcu wy: sa: wy?/wy:	<u>dbus</u>	'U' [Province];
thau wa ʃɔbcu wu:	<u>dbu</u>	'head';
thau wa naru wɔn na: wɔn	<u>dbon(-po)</u>	'nephew'.

0342. The Word-final and Word-initial features given above distinguish the Spelling Style from both the Reading Style and LT. There are also features that distinguish the Reading Style from LT; but, unlike the Spelling-Style criteria above, they are not absolute: they apply equally to the Spelling Style, and may be regarded as joint criteria, of both the Spelling and Reading Styles as against LT. These joint criteria include the following Word-initial (03421) and Word-final (03422) features:

¹ This qualification serves to exclude such LT words as: (dindre:) wangi, (de-'dras) dbang-gi, 'under the influence of (such things as these)'; womu, wa-mo 'fox'; waptru:, wa-phrug, 'fox cub'. dbang has a labio-velar initial (w) in Reading Spelling Styles, and also in LT, but with a glottal-plosive (?) alternative in LT (?5:).

03421. Word-initial Features

In Inter-verbal, but not in Intraverbal Junction (pp. 42-5), the following sequence of phonetic features is a criterion of both the Spelling and Reading Styles as against LT:

nasality +	plosion:	mb nd ŋg
	affrication:	ɲɖ ɲdz ɲdr
	friction:	nz

(nz and ɲdz seem to be in free variation); e.g.

1. Spelling Style

^u mba:	pha:	mbɣp	'bab	'descent'	(G. and R.);
^u ɲɖa:	ma:	ɲɖam	'jam	'soft'	(" " ");
^u nza:	kha:	nzak	'dzag	'leak'	(" " ").

2. Reading Style

ɲdriga	bsgrigs-ka	'in order to arrange';
ɲde:	'dir	'here';
ɲɖɛndrɪ:	ɖdan-'dren	'invitation'.

03422. Word-final features:

- i. (velarity + closure): k';
- iii. glottality: ʔ';
- iii. alveolarity: r ɹ.¹

¹ In general r has been used to symbolize alveolar apical friction (I.P.A. ɹ); but in this and the following paragraph it is necessary to distinguish this type of sound from a rolled type of sound (I.P.A. r); and ɹ and r have their I.P.A. values.

Word-final ɹ is an infrequently recorded alternative to r.

E.g.

- i. Spelling: **ma chiku mi: kha: mik'** mig 'eye'
 Reading: **pʌ:jik'** par-yig 'sort'
 (printing).
- ii. Spelling: **a naru wə: sa: wə?** 'os 'suitable';
 Reading **ʃe?** zhes 'named'.
- iii. Spelling: **ma: ʃa: mar** mar 'butter';
 Reading: **dʒabar** 'dra-par 'portrait'.

In the Spelling Style there is an alternative feature to '?' for the same lexical items: long duration of vowel (:); e.g. **wə?'/wə:**, 'os. R. preferred the latter (:), but not infrequently used the former (?'). Of the two only the former (?) may be stated as a phonetic criterion of the Spelling and Reading Styles.

In the Spelling Style '?' and : are phonetic interpretations of orthographic -s ('os, zhes, dbus, etc.) and never of -d or -g, which are phonetically interpreted as t' and k' respectively; but in the Reading Style '?' has been recorded as an occasional phonetic interpretation of -s, -d, and -g alike (e.g. **laxsə?'**, lag-bzos, 'hand-made'; **ʃɛ?'**, brgyad, 'eight'; **thə?'**, thog, 'top'), though the more frequent phonetic interpretation of all three in this style is long duration of vowel (:).

These and other phonetic differences between the two Styles and LT cannot be ascribed merely to differences of

phonetic exponent: the phonematic systems set up to account for these phonetic differences at the Phonological Level would not all be the same for LT as for the Styles.¹ Thus the distinction between Word-final 'ʔ' and 't' in the Spelling Style would require the setting up of two phonematic -C units in the relevant prosodic types of syllable, while the absence of any such phonetic distinction in LT would make an identical statement impossible for LT.¹

Differences between LT and the Spelling and Reading Styles are not further referred to in the text except for footnotes drawing attention to occasional non-LT pronunciations in the examples.

¹ For the distinguishing of prosodic and phonematic categories of analysis at the Phonological Level see J.R. Firth, 'Sounds and Prosodies', TPS, 1948, 127-52.

Levels of Analysis

In the preceding section (Reading and Spelling Styles) the Situational, Lexical, Grammatical, Phonological, and Phonetic Levels have been mentioned; and all have been drawn upon for criteria to distinguish LT utterances from Spelling- and Reading-Style utterances. From this point however only three of the Levels are directly relevant to the aim of this thesis (the Phonetic, Phonological, and Grammatical); and it is in terms of the categories of these three Levels alone that subsequent material is stated. The fact that the examples given are taken from recordings of R. in conversation with other Tibetans, or that they were accepted by R. in the course of his work in London, is however a guarantee that they would be valid forms for analysis at the Situational and other Levels also.

05. The Grammatical Constituents of Words

051. The Grammatical Constituents of Words (or, more briefly, Word Constituents) referred to in the title of the thesis are the subsidiary units into which Words are here divided in order to give both the most economical, and at the same time a complete, grammatical account of Word structure in LT.¹ There are five principal grammatical categories in terms of which Word Constituents may be classified: Verb (Vb.), Noun (N.), Adjective (Adj.), Postposition (Post.), Particle (Part.).

There are Words in LT in which the Word Constituent is co-extensive with the Word; and such Words thus comprise a single Word Constituent; but the grammatical analysis of many Words requires that Constituents classifiable as members of different grammatical categories be distinguished within the Word; and in such Words several Constituents need to be recognized; whence the necessity of making not the Word but the Word Constituent the primary unit of grammatical classification.

In Words of only ^{one} Constituent that Constituent is classifiable as a member of one of the five grammatical

¹ For the phonetic criteria of the delimitation of Words, see section 1.

categories Verb, Noun, Adjective, Postposition,
Particle; e.g.

yin-na'i mi (mi) gcig-gi (tʃik) ka-lon (kalɛ:) sbug-la
[yar] mthar-phyin (thʌ:dʒɪ:) sba-bu (bʌb) lags-kyi
['di-'dras-se] skyon (cɔ:) byas-yod.¹

'But a man up in Kalimpong --- Tharchin Babu has done
printing like this.'²

Vb.: skyon; N.: mi, ka-lon, mthar-phyin, sba-bu;
Post.: gcig-gi.¹

gzugs-po (sugbu) bde (ndɛ)³ thag-chod (thadʒɔ:) yod (jɔ).

'I am very well, thank you.'

Vb.: yod; N.: gzugs-po, thag-chod; Adj.: bde.

de-nas chibs-bsgyur (tʃhiβu:) ma (ma) gnang-tsang, nga-ra'i
blo (lɔ) pham-po ra[-po] zhe-drag (ʃidra) byung (tʃhū:).

'Then, since he is not coming, I am very sort-of upset.'

Vb.: byung; N.: chibs-bsgyur, blo, zhe-drag; Part.: ma.

¹ P. has here written gcig-gi for the tʃik of the recording
in order to bring it into apposition with lags-kyi.

² In the translation pause is indicated by a dash (---);
'- - -' indicates an interruption.

³ LT dɛ.

Any word that comprises a single Constituent is therefore designated e.g. Verb-Constituent Word, Noun-Constituent Word, Particle-Constituent Word (or, more briefly, Noun Word, Verb Word, and Particle Word), to indicate that it comprises only one Constituent, and that that Constituent is classifiable as a Noun, a Verb, a Particle, etc., as the case may be.

Frequently, however, more than one Grammatical Constituent must be distinguished in the composition of Words; and it may then become necessary to cite two Grammatical categories in order to account for the structure of these Words at the Grammatical Level. Such Words as these, in which more than one category is exemplified, may be designated, according to the Grammatical categories to which their Constituents are assigned, Verb-and-Particle (Vb. + Part.), Noun-and-Particle (N. + Part.), Adjective-and-Particle (Adj. + Part.); Postposition-and-Particle (Post. + Part.); e.g. ¹

shog-po de-las-yang (dilejā:) ma-gzhi da da-rin kha-sang
 [-yang (khsā:jā:) ^{'di} shog-po] 'phral de zhe-po (jibu) rang
sprād dgo-gi-mad (gugme:) gro.

¹ At the Grammatical Level '+' symbolizes 'colligated with'.

'For this paper too --- these days too, actually, I suppose they must not give very much of it --- the paper --- at present.'

(Vb. + Part.: dgo-gi-mad; N. + Part. kha-sang[-yang],
Adj. + Part.: zhe-po; Post. + Part.: de-las-yang.
[da-ga nang-bzhin nga-rang-'tsho (ṣaranzu) bod-la
(phø:le) phan-pa'i] (phembɛ:) slab-dgra-tshog-la
(lɔbdradzula) phan-pa'i-yang (phembɛ:jā:) rgyal-blon
bstan-bcos zer-[nyan (sepɛ:) 'di par] sna-tshogs
par-bkos ra-po (rɔbu) gnang-zhag (nā:ja).

'In precisely the same way, it is to Tibet's advantage, and to the advantage of the schools too, that we have made sort-of printings of the "Rgyal-blon Bstan-bcos", etc.'

Vb. + Part.: zer-nyan, gnang-zhag; N. + Part.:
nga-rang-'tsho, bod-la, phan-pa'i, slab-dgra-tshog-la,
phan-pa'i-yang, Adj. + Part.: ra-po;

It will have been observed that in each of the four types of Word that comprise more than one kind of Grammatical Constituent (Vb. + Part., N. + Part., Adj. + Part., Post. + Part.), the Particle category is represented; in fact the Particle category is the only category that is colligable with any other category within Word limits. In these two respects the Particle category

differs from the other four grammatical categories (Verb, Noun, Adjective, Postposition).

Another respect in which the Particle category differs from the other categories is that for an adequate grammatical description of Word Constituents sub-categories of Particle have to be recognized according to the type of Phrase in which each is comprised.¹ These sub-categories are five in number: Verbal (Vbl.), Nominalizing (Nomzg.), Nominal (Nom.), Adjectival (Adj.), Clausal (Cl.). The Verbal and the Nominal are so termed from the fact that they are restricted respectively to the Verbal and to the Nominal Phrase. Within Word limits the Verbal-Particle is colligable only with the Verb category; the Nominal-Particle with the Noun, Adjective, and Postposition, categories, also with the Verb and with the Nominalizing sub-category of Particle where both of these are represented in the same Word, and with the Adjectival sub-category of Particle. The Adjectival sub-category is restricted to the Adjectival

¹ The case for distinguishing sub-categories of Particle rather than establishing additional grammatical categories is put at pp. 37-41.

and to the Nominal Phrase; ~~within~~ Word limits it is colligable only with the Adjective category and with the Nominal sub-category of Particle. The Nominalizing Particle is restricted to the Nominal Phrase; and is colligable within Word limits only with the Verb category and with the Nominal sub-category of Particle. The Clausal Particle can be comprised in either Nominal or Verbal Phrase, and is colligable within Word limits with Noun, Verb, Postposition, Verbal Particle, Nominal Particle Nominalizing Particle (no examples have been recorded of colligation with the Adjective or the Adjective Particle); e.g.

[da-ga nang-bzhin de-pag cig] lha-mo'i (lamə:) bstan-bcos zer-nyan (seŋɛ:) ra-po (rɛbu) gzugs-kyi (su:gi) nyi-ma'i (pimɛ:) rnams-thar ['di-ni] (dini) sna-tshogs [-kyi] (nadzə:gi) bzo [-ba] (so:) gnang-nga (naŋ) de zhe-drag yag-go (jagu) byung-shag (tʃhū:ʃa).

'Just as, around here, the "Lha-mo'i Bstan-bcos" sort of thing, the "Gzugs-kyi Nyi-ma'i Rnams-thar", and various --- his making these has turned out very well.'

Vb. + Vbl. Part.: byung-shag; Vb. + Nomzg. Part.:

zer-nyan, bzo-ba, gnang-nga; N. + Nom. Part.: de-bar, lha-mo'i, gzugs-kyi, nyi-ma'i, sna-tshogs-kyi,

Adj. + Adj. Part. yag-po, ra-po; N. + Cl. Part.: 'di-ni

da nga-'tsho'i (ganze:) 'dir (nde:) lon-don yu-na-pa-si-tir
legs-sbyar gnang-nyan-gyi (nā:peŋg) sab cig yod.¹

We now have here --- a sahib who gives lectures at
 London University.'

Nom + Nom. Part.: nga-'tsho'i, 'dir; Vb. + Nomzg. Part. +
 Nom. Part.: gnang-nyan-gyi.

bar-skabs cig-la (tfile) lhas-sa-nas (le:sene:) tshur
(tshu:) phag-ri khul-la (khy:le) yar-yang (ja:jā:)
spyi-ne [a-ni 'dir] (de:) sleb-kvi [-yod-pa'dra]. (le:-
gijs:pdra).

'At the present juncture, from Lhasa up this way to the
 Phari district the sugar --- it may reach here next.'

Vb. + Vbl. Part.: sleb-kvi-yod-pa-'dra; N. + Nom. Part.:
lhas-sa-nas, tshur, khul-la, yar-yang, 'dir; Post. + Nom.
 Part.: cig-la.

med zer-na-ni (seneni), 'As for if I say we have not,'
 Vb. + Vbl. Part. + Cl. Part.: zer-na-ni.

dbyin-gzhung tshong-spyi chen-po'i (tshimby:) red.

'It belongs to the British Trade Agent.' (G. and R.)

Adj. + Adj. Part. + Nom. Part. (chen-po'i)

¹ nde: is a Reading-Style pronunciation (LT de:).

052. It might be objected to the above statement that a more satisfactory alternative to distinguishing five sub-categories of Particle would be to discard the Particle category, with its five sub-categories, and to establish in its place five independent categories of equal grammatical status with the Verb, Noun, Adjective, and Postposition, thus raising the number of principal grammatical categories from five to nine. In reply to any such objection it may be stated that the five sub-categories of Particle have two important features in common; and that these two features may be taken as criteria of the Particle category as against the other four categories. These two criteria are: (0521), order of grammatical categories within the Word; (0522), inapplicability of a Tonal classification.

0521. Order of Grammatical Categories within the Word

In all Words of two or more Constituents (at least one of which is necessarily classifiable as a Particle; see p.33) the order of categories is, almost without exception (for the exceptions, see pp. 120, 123-4) non-Particle, Particle; thus, if two places, initial and non-initial, are recognized within the Word, the order of categories may be illustrated as follows:

<u>Initial</u>	<u>Non-initial</u>
Verb	Particle
Noun	
Adjective	
Postposition	

In such Words the Particle category is either Verb-preceded, Noun-preceded, Adjective-preceded, or Postposition-preceded (for examples, see pp. 32-36 : Vb. + Part., N. + Part., Adj. + Part., Post. + Part.).

0522. Tonal Classification

Apart from the Postposition, all members of the four Word Classes other than the Particle (Verb, Noun, Adjective, Postposition) must be given a Tonal classification, according as that member is restricted to Tone-One Words or to Tone-Two Words; but, with two exceptions (Non-Sentence-final-Clause Particle, 'da'i; and the Interrogative Particle, dang) every member of the Particle category may be observed in Tone-One and Tone-Two Words alike without restriction, and may not therefore be classified tonally, e.g.

a. Vb. + ~~Vb~~l. Part. (na)

Tone-1 Word: **nā:ne** (- -), gnang-na (Tone-1-Word Vb.:
gnang);

Tone-2 Word: tʃhɛ:nə (- -), byas-na (Tone-2-Word Vb.: byas).

jagu tʃhɛ:nə, tɛ:dʒə ʃik nā:nə, jagu [Interruption].

yag-go byas-na, tog-rtse cig gnang-na, [yag-go Interruption].

'If all goes well, if they grant a little, well, well.'
[Interruption].

b. Vb. (phebs, dris) + Nomzg. Part (nyan)

i. Tone-1 Word: phe:nɛ: (- -), phebs-nyan (Tone-1-Word Vb.: phebs);

ii. Tone-2 " : tri:nɛ: (- -), dris-nyan (Tone-2-Word Vb.: dris).

1. tha tharɛ: de: ma: phɛ:ʃi:nɛ phe:nɛ: kuŋɛnzə sʌŋju:

\ ko:le pe: thənajū.

da [da-ran 'da'i mar] bod gzhung-nas phebs-nyan
sku-ngos-'tsho gsar-'gyur skor-la [dper 'thon-a-yong].

'At present, nothing would come out, I suppose, about news of the Officials coming down here from the Tibetan Government for instance.'

ii. ce:dzəre tri:pɛ: fira du:.

skad-chara dris-nyan zhe-drag 'dug.

'There is a terrible lot that sort-of ask.'

c. Adj. (spro, bde,) + Adj. Part (po)

i. Tone-1 Word: trobu (- -), spro-po (Tone-1-Word Adj.: spro);

ii. Tone-2- " : debu (- -), bde-po (Tone-2 Word Adj.: bde).

i. kufo:le trobu tʃhɛ:suŋe:.

sku-zhogs-la spro-po byung-song-ngas.

'Did it turn out pleasantly for you?'

ii. kufo: sanɖe la: ---ʃ: ---kusu: debu ʃəʃa re.

sku-zhog gsang-mda' lags yang sku-gzugs bde-po yod-shag red

'It is: "Mr. Sangda La, ---mm--- I see you are in the best of health".'

d. N. (so-so, lung-pa) + Nom. Part. (i)

Tone-1-Word: sosɔ: (- -), so-so'i (Tone-1-Word N.: so-so);

Tone-2 " : lungbe: (- -), lung-pa'i (" 2 " " : lung-pa).

 - - - - -
 sosø: lunbe: tʃhubə khǝ:.

so-so'i lung-pa'i phyu-pa gyon.

'Wear one's national dress.'

There is no need, either, to classify the two exceptional Particles, the Interrogative Particle, dang, and the non-Sentence-final-Clause Particle, 'da'i/de'i; for the pitch behaviour of the Particle Words to which these Particles ~~are~~ confined is dealt with as a matter of Clause Intonation.

1.

DELIMITING THE WORD:

INTER- AND INTRA-VERBAL JUNCTION

The aim of this thesis, to give a phonological account of the Grammatical Constituents of Verbal-Phrase Words, clearly requires that the boundaries of the Word should be precisely known; but convenience of grammatical statement is not the only reason for delimiting the Word: at the Phonological Level too the Word is the most convenient unit for stating such prosodic systems as Tone and Junction.

It is possible to go a long way towards delimiting the Word solely on phonological grounds, by utilizing for the purpose certain of the phonetic features characterizing the junction of Syllables. These features are stated as criteria of two terms of a Junction system: Interverbal, Intraverbal. Interverbal Junction is so named as marking the boundaries between Words, and therefore also such supraverbal units as Phrase, Clause, and Sentence wherever the boundaries of these units coincide with those of the Word, i.e. initially and finally in these units; Intraverbal Junction is so named, on the other hand, as marking the absence of Word boundaries, and therefore the absence of Phrase, Clause, and Sentence boundaries also. In the phonetic transcription and the transliteration Interverbal Junction is indicated by a space between successive Syllables, and by comma and full stop; Intraverbal

Junction is indicated by the absence of these punctuation marks (App. I, pp. 667-8).

It is not however possible to delimit Words entirely on phonological grounds, i.e. by analysis in terms of the two Junction categories, Interverbal and Intraverbal: in some examples of intersyllabic junction the junction features are ambiguous, and there are no criteria of Inter- and Intra-verbal Junction. In such instances convenience of statement at the Grammatical Level of analysis is made the arbiter of Word division. These grammatical considerations are themselves, however, not incompatible with the phonological analysis; for it is one of the results of first delimiting the Word by appeal to Junction criteria that a particular type of grammatical analysis becomes appropriate to all Words thus (phonologically) delimited, a grammatical analysis consistent with the analysis in terms of Junction. It is this phonologically determined type of grammatical analysis that is then in its turn applied to phonologically ambiguous material.

The criteria that serve to establish the two phonological categories, Inter- and Intra-verbal Junction, are considered in the following order: (11), Interverbal Junction; (12), Intraverbal Junction.

11. Interverbal Junction

The criteria of Interverbal Junction comprise all the phonetic features and sequences of phonetic features that serve to establish Word boundaries, either at the beginning and end of utterances or within the utterance. Where the Word boundaries co-incide with the beginning or the end of an utterance, only one Syllable, the utterance-initial or the utterance-final Syllable, will be of interest; but within an utterance two Syllables, the former and the latter, will both be concerned in the Junction; and the criteria of Interverbal Junction provide grounds for assigning them to different Words.

Some of the criteria can only be considered in relation to Tempo; for certain criteria are valid for utterances of one Tempo but not of another. First to be stated, at (111), are all the criteria of Interverbal Junction that can be stated independently of differences in Tempo, and that are valid irrespective of any such differences. These are followed, at (112), by those criteria the significance of which cannot be assessed unless the Tempo of the utterance (Fast Tempo or Slow Tempo) is known.

111. Criteria statable independently of Tempo

These criteria are presented under the following

three heads: (1111), Word-initial features, criteria drawn from the Syllable-initial features of one Syllable only of the Junction, the Word-initial Syllable, and therefore marks of Word-beginning that are valid irrespective of whatever features characterize the other (former) Syllable of the Junction, if there should be one; (1112), a Word-final feature, a criterion associated with one Syllable only of the Junction, but in this case the Word-final, and therefore a mark of Word-ending that is valid irrespective of whatever features characterize the other (latter) Syllable of the Junction, if there should be one; (1113), criteria comprising sequences of phonetic features drawn from both the Syllables concerned in the Junction (former and latter). In the case of criteria of this third type phonetic features of either Syllable alone are ambiguous; but features of the one Syllable provide a criterion of Interverbal Junction if jointly considered with features drawn from the other.

The Word-initial and Word-final criteria cited in 1111 and 1112 are appropriate respectively to the beginning and end of utterances as well as to Junction between Words; but those cited in 1113 apply only to junction between Words within an utterance. Thus the Word-initial

features that serve as criteria may be preceded either by silence or by an utterance of another speaker; the Word-final criterion may be followed by an utterance of another speaker, but is debarred by its nature (pause) from being followed by silence; but neither circumstance can apply to the criteria drawn from both former and latter Syllable of the Junction.

1111. Word-initial

The four combinations of ~~co-articulated~~ features given below (11111 - 4) are all markers of Word-beginning regardless of difference in Tempo.

11111. (Aspiration + $\left\{ \begin{array}{l} \text{plosion): } \text{ph th kh ch/kj}^1 \\ \text{affrication): } \text{tʃh tʃh tr} \\ \text{friction): } \text{ʃh sh ʃh; e.g.} \end{array} \right.$

de'i rkyen-gyi nga-nag-'tsho [da (tha) 'di] gang-spyi-nas
(khʌ:dzinc) phar (ʃha:) bka'-mol [cig] snga-gting [ra-po]
ga-'dras[-se] (khandre:si) gsungs dgos-kyi-yod-[red].

'Now, therefore, in what manner further --- how --- we should sooner or later, as it were, have to carry on a

¹ At the Phonetic Level the '+' sign has been used to symbolize: i. where the terms are enclosed in brackets, co-articulated features; ii. where they are not, a sequence of features.

conversation.'

[de-ring (thirf:) kha-sang] (khsā:) ya mtshan-po (shambu)
[ra-po zhe-drag] red.

'Things are terribly kind-of extraordinary these days.'

byas-bzhin (shc:fi:) sku-zhog byams-pa (tshamba) gsang-
zla lags ga-le (khale:) chibs-bsgyur (tshiβu:) gnang-go.

'Then, good bye, Mr. Champa Sangda.'

The combination of features (aspiration + friction) (qh sh fh) alternates, for the same lexical items, with (aspiration + plosion/affrication) (ph tsh tsh). (Aspiration + friction) is in fact confined to Fast-Tempo utterances; but, unlike certain other combinations of features (112), its role in Junction does not depend on a knowledge of the Tempo of the utterance, and it is not, therefore, out of place here.

1112 . (Voicelessness + lateral constriction): l; e.g.
de min-pa'i [-yang] lhas-sa (lɛ:se) khul-la phyag-las
[Interruption].

'Apart too, from that, in the Lhasa district your work
- - -' [Interruption].

yang las lha-[ba (la:) nang-gi-'dug-ga].

'Or do you do it more easily?'

'o-na de-ring sku lhod-lhod (lɛ:lɛ:) gnang-nas, bzhugs-
gdan 'jags-dgo (dgos).

'Well, stay here to-day and take it easy.' (Bell).

11113. (Voicelessness + friction + apicality): r̥;
e.g.

shing hral-hral (r̥ɛ:r̥ɛ:) byas-nas, btsug-pa.

'To plant trees far apart.' (G. and R.).

hrib-tsam (r̥ibze) gcig-la.

'In a short time.' (G. and R.)

dmar hrang-ba (r̥aŋe).

'Naked.' (G. and R.).

11114. Voiceless Vowel: h; e.g.

da yig-ge hur (hu) dag sba dag sbyang-ni,

'Now when you have studied reading and writing from 'a' to 'zed'.

don-dag ha (ha) go-gi-med.

'I do not understand what you mean'.

sgang-ga log ha-rup (h̥aru:) sba-rup cig [gnang] byas.

'Say they all did it [?working as a team].

11115. (Glottality + Plosion): ʔ

With certain exceptions it would be possible to add this combination of features as a further criterion to the four given above; e.g.

a-la'i (ʔalc:) sno-su. 'Oh, yes!'

a'u-tse (ʔʌudzi) 'dug-ga. 'There would be enough, would there not?'

dbugs (?u:) ring-po 'then.

'Take a deep breath.' (G. and R.)

With this last example may be compared the following:

ljags-dbugs (dz^u:) gtong-ba gnang-gi-'dug.

'He takes breath'; 'he breathes'.

These two examples show the phonetic exponents of the initial C term of the same Syllable (dbugs) in two different prosodic contexts:

Inter-verbal Junction: (glottality + plosion) ?;

Intra-verbal " : none.

From this pair of examples one might expect glottal plosion to be excluded from Intraverbal Junction; and this is in fact so of all types of Word except those in which (a), the Verbal, and (b), the Nominal, sub-categories of Particle are represented; e.g.

a. Verbal Particle

'da'i da-lta skyon-a-yod (cʃ:ʔajʃ).

'You have not printed it here, I suppose.'

'o-na rgyugs-a (ju:ʔa:). 'Good morning, then.'

nga'i spun-kyag mdas ('di-ru) (yod-na-a (jʃ:nəʔa:).

'Would that my brother were here!' (Bell).

b. Nominal Particle

da-ring gnam 'di-'dras grang-nga-la-a (trapeleʔa:).

'How cold it is to-day!'

rta 'di che-ba-la-a (tʃhɛ:ləʔa:).

'What a big horse this is!'

Except for the Particle examples given above, all of which have the same spelling (a), it would be possible to include the combination of features (glottality + plosion (ʔ)) among the criteria of Interpersonal Junction.

1112. Word-final

Only one criterion may be cited here: pause (---). A pause in the course of an utterance or between utterances co-incides with Word-ending, and can therefore be treated as a Word-final feature; e.g.

jā: dyndra rər nā:lejā: thē: tʃigi --- ē: --- ma re ---
 thē: pi: --- giri:s prī:s phitre sepē: ʃk dugane ---
 khongī kundʃ:lejā: tʃigi phyji: drymby: rəbu ʃy:.¹
yang bdun-phrag re-re'i nang-la-yang theng gcig-gi
 --- ma red --- theng gnyis --- ghi-ri-si phi-rin-si
phi-dar zer-nyan gcig 'dug-ga[-na] --- khong-gi [sku-mdun-la-
yang gcig-gi] bod-yig sgron-'bul ra-po zhus.

'And once, too, in the course of each week --- er --- no, it is not --- twice --- there is someone called Prince

¹ For --- (pause), see App. I, p. 670.

Peter of Greece, is there not, mm? --- with him too I have been acting as a sort of lamp to illumine his Tibetan studies.'

di:ne:lejā: tshagba: --- naranz tshagba: di --- tʃagba:
ji:na,
thago / jā: doba: jīne.

de'i sngas-la[-yang] tshag-par --- nga-rang-'tsho'i
tshag-par 'di --- lcags-par da-ga yin-na, yang rdo-par
yin-na.

'And before that, the letterpress --- this letterpress of ours --- was it a real type press or was it a litho press?'

dine: ndi --- khari jīne --- ndi --- tʃindre: sɔbte rɣbu di.¹
de-nas 'di --- ga-re yin-na'i --- 'di'i --- lcem-kra'i
bzo-lta ra[-po] de'i.

'Next this --- what is it? --- this --- this thing sort-of shaped like tweezers.'

Although pause co-incides with Word-ending, it by no means follows that Word-ending is regularly marked by pause. If it were, there would have been no need for the symbol --- in the above examples: space between Words would have been sufficient.

¹ ndi is a Reading-Style pronunciation (LT di).

1113. Criteria drawn from both Syllables of the Junction.

The following five sets of criteria (11131 - 5) establish the two Syllables concerned as being in Interverbal Junction, and therefore as belonging to different Words: a Word boundary runs between them.

11131. Aperture Features

A prominent feature of LT is a so-called 'vowel harmony' of the type in which the degrees of aperture of vowels within the Word are related, with the result that certain vowels within given Words preclude the possibility of there being certain other vowels in those Words (see Closure, pp. 593-614; 2121331, , 2121332).¹ When therefore the vowels of two Syllables in Junction are incompatible with each other as regards membership of the same Word, this sequence of vowels may be cited as a criterion of Interverbal Junction.

¹ The terms vowel and consonant are here phonetic only; at the Phonological Level phonematic units are designated C or V as appropriate (for this distinction, see F.B. Palmer, ' "Openness" in Tigre: a Problem in Prosodic Statement', Bulletin of the School of Oriental and African Studies, XVIII, 3 (1956), 561.

Vowels of Syllables in Interpersonal Junction

First Syllable

Second Syllable¹

a. closeness:	$\begin{bmatrix} i(:) & u(:) & y(:) \\ \tilde{i}(:) & \tilde{u}(:) & \tilde{y}(:) \\ & \gamma & \wedge \end{bmatrix}$	+	$\begin{bmatrix} e(:) & \tilde{e}(:) \\ \upsilon & \end{bmatrix}$	(half-closeness + frontness + rounding) (openness + rounding)	a. b.
b. (backness + spreading):			$\begin{bmatrix} o(:) & \tilde{o}(:) \\ & \end{bmatrix}$	(half-openness + backness + ")	c.
			$\begin{bmatrix} e(:) & \tilde{e}(:) & e(:) \\ o(:) & \end{bmatrix}$	half-closeness	d.
c. (half-closeness + backness + rounding):	$o(:)$	+	$\begin{bmatrix} \epsilon(:) \\ o(:) & \wedge \\ a & \tilde{a}(:) & \upsilon \end{bmatrix}$	(half-openness + frontness + nasality) (" " + backness) openness	e. f. g.
d. (half-closeness + frontness + rounding):	$e(:) \tilde{e}(:)$		$\begin{bmatrix} i(:) & u(:) & y(:) \\ \tilde{y}(:) & \end{bmatrix}$	closeness	h.
e. (half-openness + frontness + spreading):	$\epsilon(:)$				
f. (half-openness + backness + rounding):	$o(:) \tilde{o}(:)$	+	$\begin{bmatrix} o(:) & \gamma \\ \wedge(:) & \tilde{\lambda}(:) \end{bmatrix}$	(half-closeness + backness) (half-openness + backness + spreading)	i. j.
g. openness:	$\upsilon \ a \ a(:) \ \tilde{a}(:)$				
h. (half-openness + backness + spreading):	\wedge	+	$a(:) \ \tilde{a}(:) \ \tilde{a}(:)$	openness	k.

¹In 11131 a more detailed phonetic transcription has been used, in which \tilde{i} is distinguished from i , \tilde{o} from u , \tilde{a} from a , and υ from o in accordance with the I.P.A.

Where the vowels of successive Syllables accord with the above table, those Syllables must be assigned to different Words; e.g.

h + k

dn̄gos-gnas [sic] gsungs-rnams gnang-nga (s̄ō:n̄am n̄aŋə)
ra [-po 'di-'dras ga'i] go-thos ma byung.

'I had certainly not heard any sort-of Namthar-singing of that quality.'

g + j

nyin-gung zhal-lag gra-sgrig (je:la tr̄_odri:) byas-nas,
zhog.

'Have lunch ready.' (G. and R.).

e + h

'das phyag-las sus [sic] (tʃhale: sy:) tsa-la gnang-gi-yod-na.

'Whose place is it that you are working at here?'

c + d

sku-zhog bod-skad (kʷo: ph̄e:ge:) yag-po zhed-skrag
mkhyen-gyi-'dug.

'You know Tibetan very well.'

c + g

chu-la shor-ba-red (tʃho: ʃprere).

'It slipped into the water.'

c + g

sku-zhog phyag-phebs (kʷo: tʃ^habe:) gnang-byung.

'Good morning.'

d + j

snod bkangs-kyi-'dug (nə: kʌŋɡɪdu:)

'He fills a pot.' (G. and R.).

a + c

'di'i gong (dɪ: khɔ:) ga-tshod yin-pa.

'What is the price of this one?' (Bell).

b + c, f + i

sgang-ka log dar-khyabs yong-ba (lɔ: thʌŋɟɔp ʝɔŋe)

- - - byung-na,

'If an expansion of all these should happen to come,'

d + h, f + h

bries-mag nga-rang-'tsho'i dus-la (ŋaranzɔ: thy:lɔ) yar

bskyid-po zhe-drag yong. ['di'i (ʝɔ: dɪ:) rkyen-gyi

rgyun-sang] yon-tan-la dwangs-shes ma byas-na, - - -.

'Later on, when your time came, it would be very nice for you. In that case, if you do not get well educated, - - -.'

g + i

da-rin kha-sang slab-dgra-la (khsã: lɔbdra:) [yar]

slab-sbyongs (ʝa: lɔbdʒɔ:) rim-pa ga-re ga-re byed-kyi-yod-pa.

'Up there at the school what sort of stage in your studies have you reached at present?'

g + h, a + b

de-nas [de-ni] lcags-par de (tʃagba: di) ga-dus
thon-pa-yin-na (khady: thombe ji:ne).

'Next, then, when did this type-press start?'

c + f

sku-gzhog ga-dus (koʃo: khady:) chibs-bsgyur gnang-nga-
vin-na.

'When did you come, I wonder.'

11132. (Nasality + absence of + plosion/affrication, except
oral closure) + (affrication + voice + dorsality)
 i(:) ɛ(:) ø(:) ʌ(:) [p ph b t th d k kh g c ch ʃ
 ʝ(:) ʒ(:) ʊ(:)] [tʃ tʃh ts tsh tr tr̥ dr (not dʒ)]

e.g.

gzugs-po bde thag-chod [yod, de-ring kha-sang] (thirfi: khasā:).¹

'I am very well, thank you, these days.'

de'i rkyen-gyi nga-nag-'tsho gang-spyi-nas phar bka'mol [cig]
 (kamʒ: tʃiŋ) snga-gting [ra-po] gsungs dgos-kyi-yod-red
 (sʒ: guŋjo:re).

'--- on that account, in what manner further --- how ---
 we might at some time or other have to carry on a sort-of
 conversation.'

de-nas ka-lon sbug-la (kalɛ: pū:le) tshur phebs-ni, [yang
 'das] (jā: de:) lo ga-tshod rtse thad-kyi-yod-na.

¹ ndɛ is a Reading-Style pronunciation (LT: dɛ).

'Then, too, about how many years have gone by since you came here to Kalimpong?'

da da-rin kha-sa[ng] [ka-lon sbug] tsha-ba (thirī:
khasā: kalē: pū: tshawe) tsha-sa'i mi-'dug-gas.ug-gas

'Now, is not Kalimpong a real hot spot these days?'

When followed by such features as (affrication + voice + dorsality) (dʒ) and (friction + voice + coronality) (z) the combination of features under consideration here, (nasality + absence of oral closure), has been recorded in Fast-Tempo (ft) utterances in both Interverbal and Intraverbal Junction;¹ and such a sequence of features cannot therefore be treated as a criterion of Junction as far as concerns Fast Tempo; e.g.

Intra.: nanā:z; Inter.: ʃu:dē: dʒʌ:dy:.

da, sku-zhog, nga-rang-'tsho (nanā:z) de'i sngas-nas
['di-ni] lhas-sar bzhuks-gdan 'jags-dus (ʃu:dē: dʒʌ:dy:)
gang-nas,

'Now, sir, before this, then, when you were living in Lhasa,'

Intra.: nā:dʒū.

phyag-phebs gnang-byung (nā:dʒū).

¹ For the term 'coronality', cf. Bloomfield, Language, London, (1935), 98: 'Contact can be made by the tip of the tongue (apical articulation) or by a larger area, the blade, round the tip (coronal articulation).' Cf. also Chomsky and Halle, The Sound Pattern of English (New York, 1968), 304.

'Good morning.'

Inter.: khsā: zɤp.

de-ring kha-sang rdzab (khsā: zɤp) zhed-skrag yod-pa-red.

'There is a terrible lot of mud these days.'

In the above ft examples d₃ and z, preceded by nasal vowels, appear in both Inter- and Intraverbal Junction; but in Slow Tempo (st) utterances such a sequence can only be Interverbal, and is therefore stated as an Interverbal criterion, for st utterances, at 11221 - 2 below.

When followed by any other features, e.g. lateral constriction (l l_o), nasality (m n ɲ ɳ), (friction + voicelessness) (s ʃ ɹ), (nasality + absence of oral occlusion) is ambiguous, and provides no Junction criteria.

11133. (Affrication + coronality) + (Any features other than vocalic.)
(friction + coronality)

t_s dz s z + p ph b tʃ l l_o m j r s, etc.

e.g.

da-ga'i-se bka'-mol (thaga:s kamʃ:) ra-po [zhus mchog].

'We must have a spontaneous conversation.'

da, sku-zhog, nga-rang-'tsho de'i (ganā:z di:) sngas-nas
['di-ni] lhas-sar bzhugs-gdan 'jags-dus gang-nas,

'Now, sir, before this then, when you were living in Lhasa,'
de-nas ka-lon sbug-la tshur phebs-ni, [yang 'das] lo

ga-tshod rtse thad-kyi-yod-na (ts the:gejə:ne).

'Then, too, about how many years have gone by since you came here to Kalimpong?'

[ngas] 'das-yang nga-rang-'tsho'i bod-yig skor-la tog-rtsa
tog-rtsa rang (to:dz to:s rā:) phar bris-gi [sic] bris-gi
[sic] ['di-dras ra-po] byas-na[s],

'I myself have kept on at this too, writing away, a bit here and a bit there, about this Tibetan language of ours,'

Foreign loan-words are excluded from this criterion,
e.g. be:skup, sbas-se-kob, 'cinema'.

11134. (Labiality + occlusion +
+ voicelessness)

labiality

(plosion

(affrication

[voice)

+ [aspiration)

(friction + voice)

laterality, nasality, semivowel.

p ph b m

ph b th d kh g ch j

tʃh dz tsh tr dr

p'

z r

l l m n ɲ ŋ j w; e.g.

nga-rang-'tsho'i [gcig] bod-yig de [phar 'phar-] khyabs
chen-po (pha:ɣp' tʃhimbu) ['di-'dras] byung-na,

'If there should be such a great expansion of these Tibetan studies of ours over there,'

bar-skabs nga-nang-'tshos (ph^h:g^hp' nananzə:) phyag-las
ga-re gnang-gi-yod-na.

'What work are you doing at present?'

mgo dang rkub ra-po (kup' rxβu) ma tshang-bzhin,

'When the head and tail, as it were, are incomplete',

In ft utterances (labiality + occlusion + voicelessness) also provides a criterion of Interverbal Junction when followed by (plosion/affrication + voicelessness + non-aspiration + non-labiality) (t k c tʃ ts tr, but not p) (11211); but it does not provide a criterion when followed by (friction + voicelessness) (s ʃ) whatever the Tempo.

11135. (Labiality + nasality) + (voicelessness +

<u>plosion</u>
<u>affrication</u>
<u>laterality</u>

)

m +

<u>p ph t th k kh c ch</u>
<u>tʃ tʃh ts tsh tr tr</u>
<u>l</u> ; e.g.

byams-pa gsang-mda' lags de-ni gsungs-rnams gang (sū:nam
khā:) min-mdzad [yag-po] yod-pa[-red zer-ra-red]
go-nyung ta'i. - - -.

'I had heard it said that our friend here, Mr. Champa Sangda, that his Namthar-singing was incredibly good; but - - -.'

lhag-par-du [nga-rang-'tsho] bod-rig [sgang-kha]
yar-rgyas [-kyi don-dag]-la thugs-bsam chen-po (thusam
tjhimbu) bzhes-kyi-['dug]-na.

'In particular, we are giving a lot of thought, are we not, to the question of the progress of the whole Tibetan race.'

'di sngas-ma'i gcig rdo-par-las zhe-drag gam gtsang-nga
(gam tsan) 'dug.

'This is a much cleaner job than the previous one, the litho press?'

This criterion overlaps to some extent with 11111, and 11112, and completely with 11211.

112. Criteria statable only with reference to Tempo

The criteria statable hitherto have all been valid indications of Interpersonal Junction without regard to the Tempo of the utterance; the following criteria must however be stated within the framework of a Tempo system of two terms: Fast Tempo (ft), Slow Tempo (st) (21211). The reason for this difference in treatment is that certain features common to both ft and st are criteria of Interpersonal Junction in utterances of one Tempo, but not in utterances of the other; and in order to be able to assess the Junctional role of a particular phonetic feature, or

sequence or combination of features, i.e. whether or not they provide criteria, it therefore becomes essential to know the Tempo of the utterance. The position of such criteria as these is thus altogether different from one of the combinations of features cited above: 11111, (aspiration + friction) (~~ʃ~~h sh ʃh). While this latter criterion is in fact confined to utterances of one Tempo, and might therefore also be stated as a criterion of that Tempo (ft), the combination of features concerned is not common to both ft and st, and its role in Junction cannot therefore be ambiguous. It is the features that are common to both Tempos but significant for Junction only in one of them that raise difficulties.

Although every effort was made at all times to elicit genuine LT utterances, it is probably not without significance that the criteria stated here for ft utterances are mainly drawn from unscripted recordings, while those of st utterances are provided chiefly by recordings of examples read from printed texts (App.II, pp. 676-7).

The criteria stated in this section are considered under the following two heads: (1121), criteria statable for ft utterances; (1122), criteria statable for st utterances.

1121. Criteria statable for ft utterances

Two criteria (11211 - 2) may be stated here:

11211.	<u>Any combination of</u> <u>features other than</u> <u>(labiality + occlusion</u> <u>+ voice) (b')</u>	+ [<u>(voicelessness + non-aspiration</u> <u>+ plosion/affrication</u>]
	<u>i(:) ε(:) ø(:) etc.</u> <u>ĩ(:) ẽ(:) ẽ(:) etc.</u> <u>n m p'</u>	+ p t k c tʃ ts tr; e.g.

bar-skabs cig-la (phʌ: qʌp' tʃile) lhas-sa-nas tshur
phag-ri khul-la yar yang spyi-ni (jã: tʃine) [a-ni 'dir]
sleb-kyi [-yod-pa-'dra].

'At present, from Lhasa up this way to the Phari area
 the sugar --- it will probably reach here next.'

'di sngas-ma'i (nɛ: mɛ: tʃik) gcig rdo-par-las zhe-drag
gam gtsang-nga (gam tsaŋ) 'dug.

'This is a much cleaner job than the previous one, the
 litho press?'

de-nas ka-lon sbug-la (dine: kalɛ: pũ:le) tshur phebs-ni,
[yang 'das] lo ga-tshod rtse (khaɖzø: ts) thad-kyi-yod-na.

'Then, too, about how many years have gone by since you
 came here to Kalimpong?'

shes dang (ʃi:n tã:).

'I must tell you.'

This criterion cannot stand for (st) utterances:
in them (voicelessness + non-aspiration + plosion/
affrication) preceded by a vowel (non-nasal) — **i(:)**
ɛ(:) etc. — is a feature of both Inter- and Intra-verbal
Junction; e.g.

Inter.: **tshoŋbe tʃigi**. tshong-pa zhig-gi (**tshoŋbe tʃigi**)
red.

'It belongs to a trader.' (G. and R.); cf.

Intra.: **petʃa**. dpe-cha (**petʃa**) mgvogs-po kh yer shog.

'Bring the book quickly' (G. and R.). (ft: **peɖʒe**).

Inter.: ^{di}**tsā:ma**. ^{di}'di gtsang-ma (**di tsā:ma**) byed.

'Make it clean' (G. and R.);

Intra.: **khatsø:**. lo ga-tshod (**khatsø:**) vin-pa.

'How old are you?' (G. and R.). (ft: **khadzø:**).

The examples given in the preceding paragraph record (plosion/affrication + voicelessness + non-aspiration), without distinction, both initially and medially in Words, through the use of identical phonetic symbols (**tʃ ts**); but in some examples it seems possible to detect a difference, of tensity, between this combination when Word-initial and when medial, such that Word-initial (plosion/affrication + voicelessness + non-aspiration) is accompanied by greater muscular tension, while medial (plosion/affrication + voicelessness +

non-aspiration) is accompanied by a more lax type of articulation that is difficult to distinguish from voice. In a more detailed phonetic transcription the distinction may be symbolized as:

a. (tenseness + plosion/affrication + non-aspiration):

p t tʃ etc.;

b. (laxness + " / " + non-aspiration):

b̥ d̥ dʒ̥ etc.

The phonetic distinction is fine; and it has often been difficult to decide, in particular instances, whether to analyse the syllable initial of a given Syllable in Intraverbal Junction as an example of (tenseness + voicelessness + non-aspiration) (*khats̥ə:*) or of (laxness + voicelessness + ~~non-tenseness~~ non-aspiration) (*khad̥z̥ə:*); alternatively, a similarly difficult choice has sometimes to be made between (laxness + voicelessness + non-aspiration) (*khad̥z̥ə:*) and voice (*khadz̥ə:*). It is perhaps worth pointing out that, if a distinction between tenseness and laxness could be regularly established, a more economical statement of the criteria of Inter- and Intraverbal Junction could then be made than the one given here; for the distinction between the ft criterion 11211 and the criterion 11111 could be dismissed, and the features

in question comprehended in the single criterion:

- a. Inter.: (tenseness + voicelessness + plosion/affrication);
 b. Intra.: (laxness + " + " / ").

a. p ph t th tʃ tʃh etc.

b. b ɖ dʒ etc.

11212.
$$\left(\begin{array}{l} \text{Labiality} + \text{occlusion} \\ + \text{voicelessness} \end{array} \right) + \left(\begin{array}{l} \text{plosion/affrication} + \\ \text{voicelessness} + \text{non-aspiration} \\ + \text{non-labiality} \end{array} \right)$$

 p' + t k c tʃ ts tr, but not p; e.g.

bar-skab cig-la (phʌ:qʌp' tʃile) (lhas-sa-nas tshur
phag-ri khul-la yar yang spyi-ni [a-ni 'dir] sleb-kyi-
yod-pa-'dra.

'At present, from Lhasa up this way to the Phari area
 the sugar --- it will probably reach here next.'

spyi-khyab sku-zhogs-kyi (tʃigjʌp' kuʃo:gi) red.

'It is from the British Trade-Agent.' (G. and R.).

gsol-thab gtsang (sy:ɖʌp' tsã:) thag-chod byas-nas
zhog.

'Keep the kitchen thoroughly clean!' (Bell).

This criterion overlaps to some extent 11134 and
 11211.

1122. Criteria statable for st only

Two criteria (11221 - 2) are valid for Interverbal
 Junction in st, but not in ft, utterances.

11221. $\left[\begin{array}{c} \text{(Nasality + absence} \\ \text{of oral occlusion)} \end{array} \right] + \left[\begin{array}{c} \text{(affrication +} \\ \text{dorsality + voice)} \end{array} \right]$

$\text{i}(:) \text{ɛ}(:) \text{ə}(:) \text{ʃ}(:) \text{ã}(:) \text{ʒ}(:) \text{ũ}(:) + \text{dʒ}; \text{e.g.}$

lags yod. bzhugs-gdan 'jags (ʃu:dɛ: dʒa:)

'Yes, please sit down.' (G. and R.).

rkang rjen-ma (kã: dʒẽme).

'Bare-footed.' (G. and R.).

mdas ga-tshod bzhugs-gdan 'jags-kyi-yin-pa ($\text{ʃu:dɛ: dʒʌ:gejimba:}$).

'How long are you staying on here?' Hon. (Bell).

11222. Vocalic articulation + (voice + friction + coronality)

$\left. \begin{array}{l} \text{i}(:) \text{e}(:) \text{ɛ}(:) \text{u}(:) \text{o}(:) \text{ɔ}(:) \\ \text{y}(:) \text{ø}(:) \text{a}(:) \text{ĩ}(:) \text{ũ}(:) \text{ɛ}(:) \\ \text{ʒ}(:) \text{ʃ}(:) \text{ə}(:) \text{ã}(:) \text{e} \end{array} \right\} + \text{z}; \text{e.g.}$

grogs-po 'dzoms-pa-red (trɔkpu zɔmbere).

'Friends met.' (G. and R.).

lags nga de-ring rdza-leb (thirĩ: zale) la-nas 'gro-gi-yin.

'Yes, to-day I shall go by the Jelep La.' (based on G. and R.).

da rdzogs-shag (tha zɔ:ʃa).

'It is all used up now.'

For dʒ and z in ft utterances, see 11132; for z preceded by features other than that given above see 1211 (Intraverbal Junction).

12. Intraverbal Junction

The criteria of Intraverbal Junction comprise every

type of phonetic feature and sequence of phonetic features that serves to establish the two Syllables concerned as being in an Intraverbal-Junction relationship with each other, and therefore members of the same Word. These criteria are ^epresented under two ^{criteria}heads: (121), comprising co-articulated features drawn from a single Syllable of the Junction; (122), criteria comprising sequences of features drawn in some cases from a single Syllable, and in others from both Syllables, of the Junction.

121. Criteria comprising Co-articulated Features drawn from a Single Syllable.

Under this head may be cited the following five criteria (1211 - 5):

1211. (Affrication + coronality + voice): **dz.**

dz must be initial in the Syllable; and the Syllable in which it is initial is in Intraverbal Junction with the preceding Syllable; e.g.

nor-bu gling-ka'i phyag-las yun ring-thung ga-ga-tsam
(**khagadze**) [cig] gnang-nga-vin-na.

'For about how long a period did you work at Norbu Lingka?'

nga-rang-'tsho da 'da'i khyon phyag-las gnang-ni, da[-lta]
bar-du lo ga-tshad (**khadze**;) tsa ['thad]-kyi-yod-na.

'How many years have gone by up till now while you have

been doing regular work here?'

[tog-rtse] (to:dzə) yon-tan dwangs-shes byas-na,

'If you get some education now,'

1212. (Velarity ± $\begin{cases} \text{occlusion} \pm \text{non-nasality} \\ \text{friction} \end{cases}$): $\begin{matrix} k' & g' \\ x & \gamma \end{matrix}$

The syllabic combinations of features g' and γ are excluded from this criterion, and are considered below (p. 72).

k' , g' , and x are final in the Syllable, and establish that Syllable as in Intraverbal Junction with the succeeding Syllable; γ , on the other hand, is initial in the Syllable when followed by a vowel, and final when followed by a consonant. In the former case the Syllable in which γ is initial is in Intraverbal Junction with the preceding Syllable; in the latter case the Syllable in which γ is final is in Intraverbal Junction with the succeeding Syllable; e.g.

de'i sngas-la tshag-par (tshag'ba:) [de nga-rang-'tsho'i
tshag-par (tshag'ba:) de] lcags-par (tʃag'ba:) da-ga vin-na,

'Before that, this letterpress --- this letterpress
of ours --- was it really a type-press,'

'dug-se (duxs) byas. 'Like this, say.'

phyag-dpe 'di [nga-rang-'tsho'i] debs-kyi (deb'gi)

lugs-srol (loxso:) vin-na,

'Is this book after the manner of our foreign-style books, or - - -?'

bsgrigs-kyi-'dug (driyidu:). 'He fixes it.'

'di, dang-po sgrig-sa (drik'sə) da'i.

'Of this, this join here, first.'

Two exceptions have been observed to this criterion: the Postposition cig, 'a', 'an', and the Noun gcig, 'one', have sometimes been recorded with final velar closure or friction (tʃik', tʃix) and sometimes without (tʃi).

Further, apart from this alternation in the pronunciation of cig and gcig, a voiceless velar stop has also been observed in the recorded material in a very few instances, all of which are taken to be Reading-Style pronunciations; e.g.

de-nas pa[r]-yig (pʌ:jik') rim-pa'i. (LT: pʌ:ji:).

'Next, the pieces of type, in order.'

de-'tsho'i phar [cig] (tʃix) zhib-zhing phra-ba ra-po
[phar 'di-'tsho] zhus-byas,

'These people out there --- these people out there having asked for a sort-of small piece of research,'
nyi-ma re-la [yang] de rim-pa [ga-gir] gra-sgrig (trʌdrik')
byed-dgos-yod-na. (LT: trʌdri:).

'Mm, in which order do you have to set these up each day?'

Foreign Words have been excluded from this criterion; e.g.

me-se-tar e-sa-pi-rigs (sprix) zhun-nyan cig yod.

'There is someone called "Mr. Sprigg".'

Nor does the above criterion apply to examples in which (voice + velarity + non-nasality) is accompanied by the additional feature of syllabicity (ḡ ḡ). In ft utterances ḡ and ḡ are commonly the phonetic exponents of ~~phonological units~~ for Syllables that are grammatically classifiable as Particles: the Nominal Particle gi/gvi/kyi/-'i, and the Verbal Particle gi/gvi/kyi. At the phonetic level the symbols ḡ and ḡ imply here a greater degree of duration than g and g; they may also imply a change of tongue position: a forward movement on the part of the back of the tongue from the rearward to the forward part of the velum, i.e. towards a position appropriate to the articulation of gi and gi, with which ḡ and ḡ alternate. Both the greater duration and the fronting movement are implied by the syllabic symbol (').

The following, and similar, examples of ḡ and ḡ are therefore taken to be excluded from criterion 1212:
[zhugs-mar] sba-bu lags-kyi (la:ḡ) phyag-las ['di]
zhabs-phyi zhu thub-pa byed-dgos-red dang.

'Shall you have to be able to do this work of Babu La's

for him later on?'

de'i rkyen-gyi nga-nag-'tsho [da 'di] gang-spyi-nas
phar bka'-mol [cig] snga-gting [ra-po] ga-'dras[-se]
gsungs dgos-kyi-yod-[red] (gu'jo:re).

'- - - on that account, in what manner further --- how
 --- we might at some time or other have to carry on a
 sort-of conversation.'

da nga-'tsho'i ['das] lon-don yu-na-pa-si-tir legs-sbyar
gnang-nyan-gyi (nā:neŋ) sab cig yod.

'We now have here a Sahib who lectures at London
 University.'

1213. (Labiality + voice + $\left[\begin{array}{l} \text{occlusion): } b' \\ \text{friction): } \beta \end{array} \right.$

(Where the above combinations of features are further
 combined with syllabicity, b , β , they are excluded from
 this criterion, and are considered below).

b' is final in the Syllable, and establishes that
 Syllable as in Intraverbal Junction with the succeeding
 Syllable; β , on the other hand, is initial in the
 Syllable when followed by a vowel, and final when
 followed by a consonant. In the former case it marks
 Intraverbal Junction with the preceding, and in the
 latter case with the succeeding, Syllable; e.g.

sku-zhog ga-dus chibs-bsgyur (tʃhiβju:) gnang-nga-yin-na.

'When did you come, sir?'

phyag-dpe 'di [nga-rang-'tsho'i] debs-kyi (deb'gi)

lugs-srol yin-na,

'Is this book after the manner of our foreign-style books, or - - -?'

da [sde-pa] (dɛpə) ra-po gcig-la cha bzhag-na,

'Now, if you rely on one sort-of division,'

shing-khrol bzo-blta (sɔb'te) ra[-po] 'di.

'This thing sort-of shaped like a cabinet.'

With the criteria given here may be compared that given at 11212 (Interverbal Junction, p').

Foreign words are excluded from this criterion;

e.g. da nga-'tsho'i ['das] lon-don yu-na-pa-si-tir

legs-sbyar gnang-nyan-gyi sab cig (sɔb' tʃi) yod.

'We now have here a Sahib who lectures at London University.'

Nor do the above criteria apply to examples in which (labiality + voice + occlusion/friction) are accompanied by the additional feature of syllabicity (p̥ p̣). As in the case of g̣ and ɣ̣, as compared with g' and ɣ, p̣ and p̥ are to be distinguished from b' and β on grounds of duration and other features, summarized in the phonetic transcription by the presence or absence

of the syllabic mark (, '). $\underset{b}{b}$ and $\underset{\beta}{\beta}$ are commonly to be associated with Adjectival Particle po, of the phonological units for which, in its utterances, they often serve as sole exponents. In addition to greater duration the symbol (, ') is in such examples to be taken also to symbolize an increase in lip-rounding during the articulation, similar to that of the articulation of bu/βu, with which $\underset{b}{b}$ and $\underset{\beta}{\beta}$ alternate; e.g.

- - - de'i rkyen-gyi nga-nag-'tsho gang-spyi-nas phar bka'-mol snga-gting [ra-po] (rɣβ) gsungs dgos-kyi-yod-[red].

'- - - on that account, in what manner --- how --- we might have to carry on a sort-of conversation at some time or other.'

[ngas] 'das-yang nga-rang-'tsho'i bod-yig skor-la tog-rtsa tog-rtsa rang phar bris-gi bris-gi ['di-'dras ra-po (rɣβ) byas-na[s],

'I myself have kept on at this too, writing away, a bit more and a bit more, about this Tibetan language of ours.'

Where the Particle syllable with which $\underset{b}{b}$ is associated is not the Adjectival Particle po, then $\underset{b}{b}$ does not necessarily imply an increase in lip-rounding, but only greater duration, as for pa in the following example:

[a-ni 'das] sleb-kyi[-yod-pa-'dra] (le:gijə:βdra).

'It will probably reach here next.'

1214. (Voice + friction + palatality): 3.

The Syllable in which 3 is initial is in Intraverbal Junction with the preceding Syllable; e.g.

de-'tsho'i phar [cig] zhīb-shing phra-ba ra-po [phar
'di-'tsho] zhus-byas (ʃy:3e),

'These people out there --- these people out there
having asked me for a sort-of small piece of research,'
ma-gas [slab-dgra]-las da-cig (thazik) phal-skad skor
[nga-rang-'tsho'i] shod-bstang de-'dras de-'dras red.
'Down there at the School too, now, --- as regards
the colloquial, our manner or speech is such and such.'

In spite of the last example the Syllable cig is
generally in Interpersonal Junction with the preceding
Syllable, and therefore not a member of the same Word).

1215. Central Vowel: e

A central vowel is sufficient to establish its
Syllable as in Intraverbal Junction with the preceding
Syllable; e.g.

['das] yar ka-lon sbug-la (pū:le) yong-nas,

'Having come up here to Kalimpong,'

de-'dras rkyen-gyi de-ni pha-gas [cig] zhu-dag 'dra-po
btang-yag[-la] sogs-pa (sogbe) de-'dras zhu-dag.

'Then, for that reason, as it were, making some sort of

whole sequence is a feature of a single Syllable, the second of the two, as Syllable-initial (see the second and third examples below: -ndre:, -nyi:, ga-'dras, bcu-gnyis), then that Syllable is thereby linked in Intraverbal Junction with the preceding Syllable; e.g. da da-ring kha-sa nyin-ltar (ninda) phyag-las [rim-pa] ga-re gnang-gi-yod-na, [nga-rang-'tsho de]. (But not rim-pa, rimbe).

'Now what method do you use in your daily work these days, you yourself in it.'

da tshag-par-gyi --- lcags-par 'di bsgrigs-pa gnang-dus (nandy:), yang sku-thang mnyes-po 'dug[-ga], ga-'dras (khandre:) 'dug.

'Now the letterpress's --- when you set up this type-press, is it tiring, or --- what is it like?'

[da] chu-tshod [phal-cher] bcu-gnyis (tfunpi:) tsam brdung-'gro'i (dungdro:) byed.

'It is now, I suppose, just about getting on for twelve o'clock.'

gza' mig-dmar (migma:). 'Tuesday.'

One exception to this criterion has been recorded: an example in which the sequence ny suggests Intraverbal Junction, though the behaviour of the former Syllable concerned in the Junction has in other contexts required

it to be treated as regularly in Intraverbal Junction with the following Syllable; grammatical analysis supports this latter conclusion. The example is:
de'i rkyen-gyi nga-nag-'tsho [da 'di] gang-spyi-nas
phar bka'-mol [cig] snga-gting (tʃiŋŋandi:) [ra-po]
ga-'dras-se gsungs dgos-kyi-yod-[red].

'- - - on that account, in what manner further ---
 how --- we might at some time or other have to carry on
 a sort-of conversation.'

The pronunciation of the Postposition 'di/de,
 'the', 'this', raises problems from the point of view
 of Junction. R. preferred, and frequently used, the
 pronunciation di; but ndi has also been not infrequently
 observed in scripted and unscripted recordings alike
 (App. II). The pronunciation ndi provides an example
 of criterion 1221 in favour of Intraverbal Junction;
 the pronunciation di, on the other hand, offers no
 criteria in itself, but, when preceded by (nasality +
 absence of oral closure), it can be shown to be in
 Interverbal Junction under criterion 11132; e.g.
ne:dʒ: di, gnas-don 'di 'its function'. The same two
 pronunciations (ndi di) have also been recorded for the
 Noun 'di/de, 'this; but in the case of the Noun there
 is a strong argument against treating ndi as an example
 of criterion 1221: ndi has been recorded initially in

Sentences and even in utterances; and in such instances there is no possibility of its being treated as in Intraverbal Junction. The pronunciation **ndi** for the Noun has therefore been treated as a Reading-Style pronunciation (031421); and this solution of the problem has also been extended to the Postposition **'di/de**, which cannot, by definition, be initial in a Sentence or utterance. Examples of both Noun and Postposition may be given as follows:

de-nas (**dine:**) 'di (**ndi**) ga-re vin-na. 'da'i (**ndi**)
lcem-kra'i bzo-blta ra[-po] de'i (**di**).

'Next, this, what is it? This, this sort-of thing shaped like tweezers?'

'di-nas (**dine:**) ga-re za-[ra-vin-na] 'di'i (**di:**) rag
ra-po, ser-po de (**di**).

'Next, what is it called, this sort-of brass thing too, the yellow thing?'

chu 'di (**ndi**) 'khol-gyi-'dug.

'The water is boiling.'

The type of junction in which the sequence of features begins with (nasality + oral occlusion + labiality) is ambiguous, and has therefore been excluded from the above criterion: such a sequence may be either Inter- or Intra-verbal; e.g. steang-nag

a. Interverbal: **-mg-**, **-mn-**

gang min-mdzad[-kyi] sems dga'-po (**sim gabu**) [zhe-drag]
byung.

'I was incredibly pleased.'

dngos-gnas [sic] gsungs-rnams gnang-nga (**sū:nAM naŋe**)
ra[-po 'di-'dras-se ga'i] go-thos ma byung.

'I had certainly not heard any sort-of Namthar singing
of that quality.'

b. Intraverbal: **-mb-**, **-mɲ-**

de min-pa'i[-yang] (**membe:jǎ:**) lhas-sa khul-la phyag-las
[Interruption].

'Apart, too, from that, in the Lhasa district your work
-- --' [Interruption].

sgra-bsnyan (**drampɛ:**). 'Tibetan guitar' (G. and R.).

In order therefore to exclude from this criterion
sequences in which **m** is initial in the sequence, non-
labiality has been specified as part of the criterion.

The other type of junction that has been excluded
is Intraverbal; e.g.

shal-cher ma-gas (**mi:se:**) phyag-tia [shang rin-po]
che'i [Interruption].

illustrated in the following examples:

tsang-ni [bsgrigs]-kyi-ma-red-pa (**tsa:n drigmariba:**).

'It will not do at all, will it?'

'di sngas-ma'i gcig rdo-par-las zhe-drag gam gtsang-nga

Dalai Lama's - - -' [Interruption].

de-tsho sgang-ka [phar] thugs-nges (thuŋi:) [med-pa-yin].

'We have no certainty about all these things.'

'da'i chibs-bsgyur gnang-byung-ngas (nā:dzuŋe:).

'Did he come here?'

de-nas de-ni (dinɿ) lcags-par de ga-dus thon-pa-yin-na.

'Next, then, when did this type-press start operating?'

[a-ni] (ʔanɿ) skad-par ban-rtse'i nang-la [phar] rim-pas
[nga-'tshos] phal-skad [skor 'di-se] bsgrigs-rgyu ra-po
de-'dres-se yin.

'Well, we have got, further, to prepare this systematically with regard to colloquial speech by means of recording --- that is what we are up to.'

Foreign words are excluded from the present criterion; otherwise gɿ in the following example would have to be taken as establishing the Junction of that Syllable with the preceding Syllable as Intraverbal:

ghi-ri-si (gɿri:s) phi-rin-si phi-dar zer-nyan gcig
'dug-ga[-na].

'There is someone called Prince Peter of Greece, is there not?'

1223.	a.	<u>Backness of vowel</u>	+	(nasality +	[<u>dentality</u>)
	b.	<u>openness</u> " "	+	(nasality +	[<u>alveolarity</u>)
						<u>palatality</u>	

a. un on ʌn un on ʌn un on ʌn b. an an an

At the Phonological Level each of the above phonetic sequences is analysed as a feature of two Syllables, the former Syllable of the Junction being of the type CV, with u/ɔ/ʌ/a as specific examples of suitable V types, and the latter a Syllable whose initial consonant contains a feature (but only in Intraverbal Junction) nasality as an on-glide to some other feature: plosion (ṇḍ), affrication (ndr ṇḍʒ), friction (nz); e.g. khong-gi [sku-mdun-la-yang kundṛ:lejā:] cig-gi bod-yig sgron-'bul ra-po zhus.

'With him too I have been acting as a sort-of lamp to illumine his Tibetan studies.'

da-lta (thandḍe) kho-'tshos [da-lta (thandḍe) shes-na,]

'If they --- if they do now know,'

de-ring nga'i nang-la sku-mgron (kundṛ:) zhig phebs-pa-vod.

'A visitor is to come to my house to-day.' (G. and R., altered).

sa-'du (sandḍu) [tshang] --- tshang-gi ko-ti.

Sandu Tshang --- Tshang's bungalow.'

ga-'dras (khandṛe:) 'dug.

'What is it like?'

da da-ring kha-sa nyin-ltar phyag-las [rim-pa] ga-re ṁang-gi-yod-na, [nga-rang-'tsho (ṇaranz) de].

'Now what method do you use in your daily work these days, you yourself in it?' (21213131; n Initial Piece).

A number of examples that appear to conform to this criterion have nevertheless already been rejected (1221) on the ground that the pronunciation in question is not LT but Reading-Style. These examples all have to do with the Noun 'di/de, 'this, the Postposition 'di/de, 'the, 'this', and the Verb 'dug, 'is', 'are'; e.g. chu 'di (tʃhu ndi) 'khol-gyi-'dug (LT: di).

'The water is boiling.'

nga-rang-'tsho da 'da'i (tha nde:) khyon phyag-las gnang-nas (LT: de:).

'Now, while you have been doing regular work here, - - -.'
(ne:bu nduge:)
mchod-chang 'di mmyes-po 'dug-gas (LT: duge:).

'Is this chang pleasant to the taste?' (G. and R., altered).

1224. $\left. \begin{array}{l} \text{(Open/half-open degree of} \\ \text{vowel aperture + backness)} \end{array} \right\} + \text{(labiality + occlusion)}$
 $\wedge b' \wedge p' \text{ } \textcircled{b}' \text{ } \textcircled{p}' \text{ } ab' \text{ } ap';^1$

At the Phonological Level each of the above phonetic sequences is analysed as a feature of two Syllables, the former Syllable of the Junction being of the type CV, with $\wedge/\text{ } \textcircled{ }/a$ as specific examples of suitable V types, and the latter a Syllable whose Consonants include, initially (but only in Intraverbal Junction), a labial stop

¹ In section 1224 $\text{ } \textcircled{ }$ is distinguished from $\text{ } \textcircled{v}$.

followed by some other feature: plosion (b't p't b'd),
affrication (b'tʃ p'tʃ b'd b'tr p'tr b'dr), friction
(b's p's b'ʃ p'ʃ), lateral constriction (b'l); e.g.

shing-khrol bzo-blta (sɔb'tə) ra[-po] de'i.

'This thing sort-of shaped like a cabinet.'

lnga-bcu (ŋʌb'dʒu) tham-pa. 'Fifty'.

rta-bsu (tʌp'su). (?) 'Mounted escort.'

rma-bya. (mab'dʒə/map'tʃə). 'Peacock.'

rta-gla (tab'lə). 'Horse-hire.'

khra-bzo-ba (tʃap'sɔ:). 'Jeweller.' (21213134; b Initial
Piece).

2.

GRAMMATICAL AND PHONOLOGICAL ACCOUNT
OF WORD CONSTITUENTS BY TYPE OF WORD

The previous section (1) dealt with such phonetic criteria as there are for delimiting Words in LT. A grammatical analysis of Words delimited in accordance with these criteria requires that the five grammatical categories introduced at 05 be distinguished: Verb, Noun, Adjective, Postposition, Particle, with five sub-categories of Particle (Verbal, Nominalizing, Nominal, Adjectival, Clausal); and this grammatical analysis is then used to delimit Words wherever the delimiting cannot be done by appeal to the phonetic criteria. As a result of applying this grammatical analysis to LT utterances certain Words can be shown to have only one Grammatical Constituent, and may therefore be treated as examples of a single grammatical category (Verb, Noun, Adjective, Postposition, Nominal-Particle, Verbal-Particle); other Words, on the other hand, are more complex: they require that more than one Grammatical Constituent be distinguished in their grammatical structure, and they therefore exemplify more than one grammatical category at one and the same time (05). In other words there may be a correlation of Word unit with grammatical category; and, for example, a particular Word may then be referred to as a Verb Word, as a Noun Word, or as a Verbal-Particle Word; but frequently

there is no such one-to-one correspondence of unit and category; and, in order to give an adequate account of the grammatical structure of these more complex Words, it becomes necessary to refer to more than one grammatical category.

Even though, however, a Word may comprise Grammatical Constituents that exemplify different grammatical categories, it is frequently the case that the Syllables to which these Grammatical Constituents correspond are bound together by prosodic features as component members of a unity, the Word. One of the most important of these prosodic features, the two-term Junction system, has already been stated (1); but there are also others (Tone, Closure, etc.) that make it unprofitable to give an account of the Grammatical Constituents of Words category by category in complete isolation from each other, as Verb, Noun, Adjective, etc. Where, therefore a number of Syllables corresponding to more than one type of Constituent may share in the statement of such prosodic systems as Tone, Closure, Intonation, these systems are stated for the Word, and for the Word only, for Clause and Sentence, as a unity.

In order to achieve the economies in statement that are to be had from associating more than one type of

Grammatical Constituent with these statements of prosodic systems referable to Sentence, Clause, Word, and Piece, it becomes necessary to base the following analysis on grammatical types of Word rather than on grammatical types of Constituent. Thus the Phonological analysis begins (at 2121) not with separate accounts of Verb Constituents and Verbal-Particle Constituents but with a joint statement of those prosodic systems which apply equally to both Verb Constituents and Particle Constituents as members of the Verb + Particle type of Word. These shared prosodic systems are at the same time also applied, insofar as they do apply, to the Verb Word and to the Particle Word. After the prosodic systems referable to the Word and, where appropriate, to the Clause, and Utterance, have all been stated, it remains to state first the prosodic systems referable to disyllabic and monosyllabic Pieces containing these Constituents, and, secondly, the phonematic systems that are set up to give values to the generalized elements of Syllable structure, C. and V.

Before each grammatical type of Word is subjected to phonological analysis, it is first necessary to state the criteria of the grammatical categories concerned, in the light of which the relevant Constituents are identified as members of these categories. Thus section 21 begins (at 211) with a list of the criteria of the Verb, the Verbal-Particle, and the Nominalizing-Particle, categories; these criteria are followed (at 212) by the phonological analysis of the Vb. + Vbl.-Part. Word., the Vb. Word, the Vb.-Part. Word, and the Vb. + Nomzg. Part (+ Nom. Part.) Word.

The Nominalizing Particle and the Clausal Particle also appear in the thesis: the former is contained both in Vb. + Nomzg. Part. Words as well as in Vb. + Nomzg. Part. + Nom. Part. Words; the latter is contained in Vb. + Vbl. Part. + Clausal Part. Words as well as in Noun. + Cl. Part. Words, Noun + Nom. Part. + Cl. Part. Words, Post. + Cl. Part. Words, Post. + Nom. Part. + Cl. Part Words. The Nominalizing Particle is dealt with in detail, however, for it occurs only in Words in which the Verb is also exemplified. The Clausal Particle is not dependent in this way on co-occurrence with the Verb and is therefore not dealt with in the thesis in any detail.

Since the Verbal-Particle category is restricted to the Verbal Phrase, and the Verb, though not restricted to the Verbal Phrase, is a characteristic, and almost indispensable category of the Verbal Phrase, an account of Verb, and Verbal-Particle, Constituents approximates to an account of the Verbal Phrase. The Nominal-Particle and the Postposition categories are, without exception, restricted to the Nominal Phrase, and so too, almost without exception, is the Noun; an account of these three types of Constituent therefore approximates to an account of the Nominal Phrase even more closely than that of the Verb and the Verbal-Particle categories does to the Verbal. There remain the Adjective and the Adjective-Particle categories, the two characteristic categories of the Adjectival Phrase; but both of these categories may also be exemplified from the Nominal Phrase too. The thesis is thus, not directly concerned with the Phrase but does nevertheless, deal with the characteristic Word types of one of the three types of Phrase, the Verbal. It therefore seems desirable to give at least a brief account of the Phrase.

The Phrase

The Phrase

The term Phrase is used for a unit that either comprises two or more Word units (two-Word Phrase, three-Word Phrase, etc.) or is itself co-extensive with a single Word unit (one-Word Phrase). Thus, as compared with the Word, the Phrase is as large or larger. As compared with the Clause, however, the Phrase may be co-extensive with the Clause (one-Phrase Clause); or a Clause may comprise two or more Phrases (two-Phrase Clause, three-Phrase Clause, etc.).

Since the Phrase invariably contains a whole number of Words, the boundaries of the Phrase will necessarily coincide with the boundaries of Words (though the reverse is true only for the one-Word Phrase); but while the grounds for delimiting the Word are part phonetic and part grammatical, the grounds for delimiting the Phrase are solely grammatical: convenience of grammatical statement.

The following examples illustrate the relations of the Phrase (in brackets) with the Word (bounded by space) and the Clause (terminated by comma and, finally, by stop):

i. Clause comprising three one-Word Phrases

(kufo:) (tʃhabe:) (nã:dʒũ). sku-zhog phyag-phebs
gnang-byung.

'Good morning.' [You made your arrival].

ii. Clause comprising one one-Word and three two-Word Phrases

(di: pɛ:lə) (ja:) (lɛ:sə rã:lə) (ju: ju:bəjina:).
de'i sngas-la [yar] lhas-sa [rang-la bzhugs bzhugs-pa-vin-na].

'You were living up in Lhasa itself before that, or - - -?'

iii. Clause comprising one one-Word Phrase

(nəʃ). sno-su. 'Yes.'

iv. Sentence comprising two four-Phrase Clauses, the former comprising three one-Word Phrases and one two-Word Phrase, and the latter three one-Word Phrases and one three-Word Phrase

(dinɛ:) (kalɛ: pũ:lə) (tshu:) (phe:nɛ), (jã:) (de:)
(lo khadzə: tʃs) (the:gejə:nə).

de-nas ka-lon sbug-la tshur phebs-ni, [yang 'das] lo
ga-tshod tse thad-kyi-yod-na.

'Then, too, about how many years have gone by since you came here to Kalimpong?'

Section 2 continues (at 21) with an account of the characteristic grammatical Word types of the Verbal Phrase, the Verb Word, the Verb + Verbal Particle Word,

and the Verbal-Particle Word, to which have been added from the Nominal Phrase, for the sake of its Verb Constituent, the Verb + Nominalizing-Particle Word.

21. Words containing Verb, and Verbal-Particle, Constituents

As has already been stated, the Verbal Phrase comprises Words of three grammatical types, and of these three types only: Vb. + (Vbl.)-Part., Vb., Vbl.-Part.; but it does not necessarily follow that Words of these three types are confined to the Verbal Phrase. The Vb. + Vbl. Part. Word is in fact limited to the Vbl. Phrase, and to identify a Word as being Vb. + Vbl.-Part. is therefore equivalent to identifying an example of the Vbl. Phrase; but the Vb. Word may also be comprised in an Adjectival Phrase, e.g. ju: trobu, bzhugs spro-po, 'pleasant to live in' (Vb.: bzhugs; Adj.: spro; Adj. Part.: po); je: ø:bə, bzhes 'os-pa, 'fit to eat' (Vb.: bzhes; Adj.: 'os; Adj. Part.: pa); the Vb. + Nomzg. Part Word must, and the Vbl.-Part. Word may, be comprised in a Nominal Phrase, e.g. ma jimbe:, ma yin-pas, 'through our not being' (Vb.: yin; Vbl. Part.: ma; Nomzg. Part.: pa-); ma jimbe, ma shes-pa, '[their] not knowing' (Vb.: shes; Vbl. Part.: ma; Nomzg. Part.: pa). Even so, it is with the Verbal Phrase that the Vb. Word and

the Vbl.-Part. Word are more frequently associated.

Section 21 is divided into two sub-sections (cf. also p. 91). In the former of these (211) are given the criteria of the three grammatical categories into which the four types of Word considered in this section (Vb. + Vbl. Part. Word, Vb. Word, Vbl.-Part. Word, Vb. + Nomzg. Part. Word) are analysable; in the latter (212) these four types of Word are subjected to phonological analysis.

211. Grammatical Criteria

The grammatical criteria given in this section fall under four heads: (2111), Verb (Vb.); (2112), Verbal Particle (Vbl. Part.); (2113), both Verb and Verbal Particle; (2114), Nominalizing Particle (Nomzg. Part.).

2111. Verb

The criteria of the Verb category are the following five (21111 - 5).

21111. Flexion

Flexion is a characteristic of the Verb only; and any Grammatical Constituent that can be shown to be one of two or more related inflected forms must therefore be a Verb. According to their formal scatter inflecting Verbs (for non-inflecting Verbs, see p. 90) may be termed (a) two-form, (b) three-form; e.g.

a. Two-form

i. ʃa:-/ʃʌ:-, ʃɔ:(-); bzhag, zhog; 'put'¹
da [sde-pa] ra-po gcig-la cha bzhag-na (ʃa:ne), [Interruption].
 'Now, if you put your trust in one sort-of method,'
'dir zhog (ʃɔ:). 'Put it here.'

ii. ʃu-, ʃy:(-); zhu, zhus; 'offer'
[da] gzhan-pa bka'-mol ga-re zhu-rgyu (ʃugju) 'dug-ga.
 'Now what else is there to discuss?'
shes ['das] nga-'tsho [phebs-na], da-ga'i-se bka'-möl
ra-po [zhus (ʃy:) mchog] zhus (ʃy:) mchog-gi-red-pa.
 'You know, if we come here, we must have a spontaneous
 conversation --- we must, must we not?'

b. Three-form

i. sa-/sʌ-, sɛ:-, sɔ(-); za/bza', bzas, bzo; 'eat'
bod-kyi mi-'tshos rtsam-pa bza'-ba-red (sabere).
 'The people of Tibet eat tsampa.'
bod-kyi mi-'tshos 'bras btsos-nas, bzas-pa-red (sɛ:bere).
 'The people from Tibet cooked rice, and ate it.'
'di bzo-shig (sɔʃi). 'Eat this!'

¹ Of the alternative phonetic transcriptions separated by an oblique, the former is appropriate to Open Words and the latter to Close (212123, Closure). Since a common phonological formula is statable for both Syllables, the alternatives are not treated as an example of flexion.

ii. ta-/tʌ-, tɛ:-, tɛ:(-); blta, bltas, ltos;

'look at'

dbyin-ji mi-rigs dgong-star sbas-se-kob bltad-mo
blta-ba-red (tabere).

'British people see a film show in the evenings.'

sab-kyis rtse po ta la-la bltad-mo bltas-pa-red (tɛ:bere).

'The Sahib saw a performance at the Potala.'

mig yag-po ltos (tɛ:). 'Look carefully!'

Thus, identifying an example of flexion is equivalent to identifying an example of the Verb category. It should however be emphasized that by no means all Verbs inflect; e.g.

c. One-form

i. naŋ-/naŋ-/nã:(-); gnang; 'grant', 'make', 'do'¹

sku-zhog phyag-phebs gnang-byung (nã:dʒũ:)

'Good morning.' [You made your arrival].

ii. ʃu:g-/ʃug-/ʃu:(-); bzhugs; 'sit', 'stay', 'live'.

de'i sngas-la [yar] lhas-sa rang-la bzhugs bzhugs-pa-
yin-na (ʃu: ʃu:bejĩna:), - - - [Interruption].

'You were living up in Lhasa itself before that, or
- - -' [Interruption].

¹ The phonetic transcriptions separated by an oblique are appropriate to different prosodic conditions, of Junction or of Closure. Since the same phonological formulae may be stated for these variants, the phonetic differences between them are not ascribed to flexion.

'dir bzhugs-pa-red (fu:gere). 'You sat here.'

21112. Colligation with Verbal Particle (Vbl. Part.)

A distinguishing feature of the Verb category is that it is colligable within Word boundaries with the Verbal-Particle category, a characteristic that it shares with no other category. Any Grammatical Constituent that is associated within Word limits with Constituents identified as members of the Verbal-Particle category must therefore, unless it is itself a member of that category, be classified as a Verb; e.g.

byas-tsang (tʃhe:dzã:), chibs-bsgyur gnang-gi-mi-'dug (naŋgimindu:).

'Therefore he is not coming.'
Vb. (byas), Part. (tsang); Vb. (gnang), Part. (gi, mi, 'dug).

las-ka de byas-na (tʃhe:ne), yag-po a-yong (ʔajũ).

'If you do this work, I doubt whether it will turn out well.'
(Bell).

Vb. (byas), Part. (na); Vb. (yong), Part. (a).

byas-bzhin (tʃhe:ʃi:), da-ring kha-sang [ma-gzhi] nam-dus
de tsha-grangs mgyogs-po mgyogs-po brjes 'gro-gi-'dug-ka
(arugyduga).

'Then the time of year just now actually --- the temperature keeps on changing very quickly, does it not?'

Vb. (byas), Part. (bzhin); Vb. ('gro), Part. (gi, 'dug, ka).

It is almost possible to make the further statement that in any Word in which the Verbal-Particle category is exemplified so also is the Verb; for the sole exceptions to such a statement are the Verbal-Particle Words described below (211121 - 6): Negative-Particle ma, Interrogative-Particle dang, Imperative-Particle dang/da, Non-Sentence-final-Particle de'i/te/ta'i/'das/da'i, Declarative-Particle gro/'gro, and Imperative-Particle do; and certain Words contained in answers to General-Interrogative Sentences and in echo Sentences (211127).

As far as the Verbal-Particle-Word Particles (211121 - 6) are concerned, the colligation of Verb and Verbal-Particle is not within the Word but within the Phrase; but this intra-Phrasal colligation with the Verbal-Particle sub-category is also restricted to the Verb, and therefore a criterion of the Verb, except that the Negative sub-category of Verbal Particle (ma/mi) colligates not only with the Verb but also with the Nominal Particle (within the Nominal Phrase, p. 103). In any Phrase in which one of the Verbal-Particle Words ma, dang, dang/da, de'i, gro/'gro, do is exemplified, so also must a member of the Verb category be; but this is not true of the Particle Words considered in 211127.

211121. The Negative Particle

The Negative sub-category of Verbal Particle (ma/mi) may be colligated with the Verb within the limits of the Word, as in the first of the three examples at 21112:

naṅgimindu:, ṅnang-gi-mi-'dug (Vb. ṅnang; Neg. Part. mi, other sub-categories of Part. gi, 'dug); or it may be colligated with it within Phrase limits but beyond Word limits, as in the following examples, in which there are phonetic criteria for treating ma as a Word (Verbal-Particle Word, pp. 30-31). In colligation of this type it is the initial Syllable of the Word following the Verbal-Particle Word that is identified as a Verb-Constituent Syllable, or, briefly, as a Verb Syllable; e.g.

da ma-gzhi [de-ni] gsol-ja-las phebs ma thub-[tsang]
(ma thu:dzā:),¹

'Now, since, then, he cannot in fact come to tea too,
comprising Vb. (shes), Nomzsg. Part. (pa).

ḡnas-don ([sic; ḡnad-don]) 'di rtogs ma ḡnang-tsang
(ma naṅzā:),

'Since they do not understand the purpose of it,'

In these two examples the Verb (thub, ḡnang) is also

Phrase limits but not within Word limits, and differs
¹ -las is a phonetic spelling for la-yang: gsol-ja-la-yang, 'to tea too'.

identifiable as such under criterion 21112, colligation within Word limits with the Verbal-Particle category (tsang).

Criterion 211121 is valid not only for the Verbal Phrase but also for those Nominal Phrases which contain a Vb. + Nomzg.-Part. Word; e.g.

de'i [yar cig] nga-rang-'tsho cig-por ma yin-pas
(ma jimbe:),

'Through our not being alone up here, - - -.'

Nom. Phrase: -Vbl.-Part. Word (ma); Nominalized-Verb Word comprising Vb. (yin), Nomzg. Part. (pa-), Nom. Part. (-s).

shes phal-cher [cig] nga-[rang-]'tsho sgang-ka log yig-ge
ma shes-pa (ma jimbe) sha-stag byas, - - -.

'Supposing, you know, that it is just that we do not, as a rule, all know how to read and write, - - -.'

Nom. Phrase: -Vbl.-Part. Word (ma); Nomzd.-Vb. Word comprising Vb. (shes), Nomzg. Part. (pa).

211122. The Interrogative Particle dang

A single-member sub-category of Interrogative Particle (dang) resembles the Negative sub-category of Verbal Particle in that it is colligable with the Verb within Phrase limits but not within Word limits, and differs from the Negative Particle in that it does not alternate

between colligation within, and colligation beyond, Word limits. Thus, in this case, the initial Syllable of the Word preceding the Particle Word (dang) may be identified as a Verb Syllable; or, alternatively, the preceding Word, if monosyllabic, must be a Verb Word; e.g. pha-gi rdo-par rang red dang (**ri tã:**).

'Is that actually a litho press over there?'

bsgrigs-kyi-yod-red dang (**drig'o:r tã:**).

'Are they arranged in order?'

[pha-gas] spyi-ni'i lung-pa [**'di**]-la spyi-ni thon-yag-se
yog-ma-red dang (**jo:mari tã**).

'Is not there any sugar for export there, in that land of sugar?'

mi de zhe-drag yag-po red [dang] (**ri tã**).

'He is a very good man, is he not?'

211123. The Imperative Particle dang/da

A single-member sub-category of Imperative Particle (dang) is not only homophonous with the Interrogative Particle dang of 211122, but is also similar to it as regards colligability with the Verb, except that while the Interrogative-Particle Word dang may be preceded by either a Vb. + Part. Word (**jo:mari tã**, yog-ma-red dang, 211122) or by a Vb. Word (**ri tã**, red dang, 211122), the Imperative-Particle Word dang may be preceded only by

a Vb. Word; e.g.

shes dang (ʃi:n tã). 'I must tell you.' [Know!].

ltos dang (tø: tã). 'Look!'

gyog-po-la dris dang (tri: tã). 'Ask the servants!'

Thus, any Word immediately preceding the Imperative-Particle Word dang is identifiable as a Verb Word.

A few examples have also been recorded in which the Syllable dang/da is characterized by initial voicing, in which case, ^{it is in} Intraverbal Junction, ~~criterion 21112 applies,~~ and the Syllable has not the status of a separate Word; e.g.

nga-la chu dkar-yol gang ster-da (te:da).

'Please give me a cup of water.' (Bell)

Cf. also gro/'gro (211125) and do (211126).

211124. The Non-Sentence-final Particle de'i/te/ta'i/
'das/da'i

Like the Interrogative-Particle Word dang (211122) the non-Sentence-final-Particle Word de'i may be preceded by either a Verb + Particle Word or a Verb Word. Therefore, either (i) the initial Syllable of the preceding Word may be identified as a Verb Syllable, with, as sole exceptions, Clauses in which the Negative Particle mi represents the ante-penultimate category of the Clause, and is therefore initial in the Verb +

Particle Word (pp. 123-4, 133); or (ii) the preceding Word, if monosyllabic, must be a Verb Word (Verb Complement); e.g.

i. Vb. + Part. Word

de-ni gsungs-rnams gang min-mdzad [yag-po] yod-pa[-red,
zer-ra-red,] go-nyung ta'i (khəpū: de:),

'Well, then, his namthar-singing is incredibly good, they say, --- I had always heard, but - - -.'

gsar-'gyur-la rim-pa ra-po gnang-song 'das (nā:sū de),

'He did a sort of series in the newspaper, but - - -.'

ii. Vb. Word

[de-nas] ma-khud pa-rad-se'i phyag-dpe skyon-rgyu 'dug
de'i (du:de),

'Then there was Marco Pallis's book to be printed, but - - -.'

lhas-sa khul-la da-lta tshag-par-se [cig 'di-'dras] med
de'i (me: de),

'We have not at present got any letterpress like this in the Lhasa district, but - - -.'

211125. The Dubitative Particle gro/'gro

In the case of one Particle it is difficult to determine whether it should be treated as a Particle Word or not; for the evidence is conflicting. The Syllable gro/'gro has been recorded as characterized initially by

either voice (**dro**) or voicelessness (**tro**). From the point of view of Junction the latter pronunciation provides grounds for treating this Syllable as a monosyllabic Word (11211). In Junction with a preceding Syllable that is not characterized by final nasality the pronunciation with initial voicelessness, e.g. **me: tro** (med gro/'gro), seems more common than the one with voice, e.g. **me:dro**; but in Junction with a preceding Syllable that is characterized by final nasality, however, initial voice alone is possible, e.g. **jindro**, **mendro** (yin-gro/'gro, min-gro/'gro); and, further, these last two examples provide grounds for treating this Syllable as a component Syllable of the same Word as yin and min (1221, **-ndr-**). Examples are as follows:

ma-gzhi da da-rin kha-sang[-yang 'di shog-bu] 'phral de zhe-po rang sprad dgos-kyi-mad [gro] (**tro**).

'I suppose, actually, that these days too they must not give very much of it --- paper --- temporarily.'

de'i rkyen-gyi [de]-ni snyung-gzhi de phog-gi-mad-'gro (**pho:g^mε:dro**), bsam-gvis.

For that reason, then, he is afraid he might catch this illness.'

kho phag-ri-la ^dbsad-kyi-yin-'gro (**de:gəjindro**).

'He will probably stay at Phari.' (Bell).

gro/'gro is therefore treated as a Particle Word only when characterized by initial voicelessness, in which case its position as regards colligation of Verb and Particle is the same as that of dang (211123).

211126. The Imperative Particle do

An instance has been recorded in which the Particle-Syllable do is characterized by initial voicelessness, and must therefore be treated in this instance as in an Interverbal relation with the previous Syllable under criterion 11211:

zhogs-gas snga-po gangs ma bzhu gong-nas, nga-tsho 'gro
do (dro to).

'Let us start very early before the snow becomes soft.'
(Bell);

elsewhere do is characterized by initial voice, and treated as in Intraverbal-Junction with the previous Syllable;

e.g. naŋdo, gnang-do, thɛ:do, thad-do, tʃhə:do,

mchod-do. Cf. also dang/da, 211123.

211127. Other Words comprising nothing but Particles

Words comprising one or more Particles may also be contained in answers to the questions of another speaker and in echo Sentences, expressions of agreement with another speaker, echoing part of his utterance, as in (ii)

of the following pairs of utterances:

- i. khyod rdo-rje gling-la 'gro-myong-ngas.
(Vb.: 'gro; Part.: myong, ngas.)
'Have you ever been to Darjeeling?'
- ii. ma-myong (maṅṅ:).
(Part.: ma, myong.)
'No' (lit. never been) (Bell).
- i. bu bzhugs-gdan 'jags-yod-pas.
(Vb.: 'jags; Part.: yod, pas).
'Are you at home, Rinzin?'¹
- ii. la yod (jə:).
(Part.: yod).
'Yes, I am.'
- i. bod-kyi skor-la par-skyon gang min-mzad yag-go yong-gi-red.
(Vb.: yong; Part.: gi, red)
'The printing will turn out incredibly well for Tibet.'
- ii. no-su. da-ga rang red (re).
(Part.: red)
'Yes, it certainly will.'

¹bu has been translated as 'Rinzin' [the name of the person addressed] here; for an aunt would hardly address her nephew as 'son' in a corresponding English-language situation.

211128. Although the Verb is colligable, within Word limits, with the Verbal Particle, it does not follow that the Verb need always be colligated with it, even within the Verbal Phrase (see the Verb Word, pp. 31-32).

Further, the Verbal-Particle is not the only grammatical category that is colligable with the Verb within Word limits: there is another sub-category of Particle, the Nominalizing-Particle, the colligation of which with the Verb is also a criterion of the Verb; and in Words in which this sub-category of Particle is exemplified, so also may the Nominal sub-category be.

21113. Colligation with Nominalizing (Nomzg.), and Nominal (Nom.), Particle

The Verb is also colligable within Word boundaries with the Nominalizing sub-category of Particle, a characteristic that it shares with no other grammatical category except the Nominal-Particle. The Constituent preceding an example of the Nomzg.-Part. category is thereby identified as a member of the Verb category; for the order of categories within this type of Word (Nomzd.-Vb. Word) is Vb., Nomzg.-Part., (Nom. Part., if exemplified); e.g.

ghi-ri-si phi-rin-si phi-dar zer-nyan (sepɛ:) gcig 'dug-ga[-na].

'- - - there is someone called Prince Peter of Greece, is there not? Mm?'

Vb. (zer), Nomzg. Part. (nyan).

phal-skad skor-gyi da nga-'tsho bka'-mol gnang-bstang-gi
(nanḍangi) yang pha-gi'i sgra'i yong-b[s]tang (jṇḍā:)
dang de-tsho'i skor-la-yang ['di-ni] dag-zhu[s]
gnang-gi-'dug.

'For the colloquial we are now researching into styles of conversation, and the production of sounds in it, and those things.'

Vb. (gnang, yong); Nomzg. Part. (bstang); Nom. Part. (gi).

ngas 'di'i sngas-la yar mthar-phyin sba-bu lags-kyi
[skyon-pa'i] (cṇmbe:) tshag-par de lhas-sa khul-la
mthong-byung.

'I saw this letterpress printed by Mr. Tharchin before that, up in the Lhasa district.'

Vb. (skyon); Nomzg. Part. (pa); Nom. Part. (-i).

dang-po ['di] ga-bar slab-pa (lṅbe) [gnang-ba]-yin-gnang
nga-rang-'tsho'i lcags-par de bsgrigs-pa (drigbe)
gnang-rgyu (naṅgju).

'First, where did you learn this, how to set up a type press?'

Vb. (slab), Nomzg. Part. (pa); Vb. (bsgrigs),

Nomzg. Part. (pa); Vb. (gnang), Nomzg. Part. (rgyu).

gnang-bstang-gi and skyon-pa'i in the second and third of the above four examples also serve to illustrate the colligation within Word limits of the Verb and the Nominal-Particle categories. This colligation, which distinguishes the Verb from the Verbal Particle, but from no other category, is possible only in Words in which the Nominalizing Particle is also represented, and it is the Nominalizing-Part. category that follows the Verb in the grammatical structure of these Words, not the Nominal Particle.

There is this difference between the colligation of Verb and Verbal-Particle categories (21112) and the colligation of Verb and Nominalizing-Particle (21113): the former, with the single exception of the Verbal-Particle ma, is confined to the Verbal Phrase, and the latter to the Nominal Phrase.

The Verb, then, is not exemplified only in the Verbal Phrase: if colligated with the Nominalizing Particle (21113), it may also be exemplified in the Nominal Phrase; in which case the colligation is within Word boundaries. It is also possible for the Verb to be exemplified in the Adjectival Phrase; in which case it is colligated with the Adjective category in the order

Verb, Adjective, and the colligation is not within Word boundaries; e.g.

bzhugs spro-po (fu: trobu) 'dug-gas.

'Would it be pleasant to live in?'

Vb. (bzhugs); Adj. (spro).

bzhes 'os-pa (je: ø:be) mi-'dug.

'It would not be fit to eat.'

Vb. (bzhes); Adj. ('os).

21114. Order of Categories

211141. Within Clause and Sentence

With certain exceptions (pp. 117-20) the final Phrase in Clause and Sentence is Verbal; and those grammatical categories which can be exemplified from the Verbal Phrase are therefore final in Clause and Sentence. There are only two such categories: Verb, Verbal Particle.

There are Sentences in which either the Verb or the Verbal Particle is alone exemplified in the Verbal Phrase. Where the Verb is not exemplified in the Verbal Phrase (211127) the question of its place in the order of categories within the Clause does not of course arise; but where the Verb is exemplified and the Verbal Particle is not, it occupies the **ultimate** place; e.g.

la red (re:). 'Yes, it is.' Vb. (red).

par skyon-rog gnang (nã:), zhu-dgo.

'I must say to him: please print it.' Vb. (gnang)

mi-ga'i mar phyin (tʃhĩ:). 'I went down there'.

Vb. (phyin).

The Verb also occupies the ultimate place in the Clause in those Clauses in which the Verbal Particle is exemplified only by a member of the small pre-Verb sub-category of Verbal Particle comprising only the Negative Particle (ma/mi) and the Dubitative Particle (a); e.g.

ltas-rtsi ltas-rtsi ma tog (ma tɔ:)

'Not counting a tiny bit.'

Vb. (tog); pre-Verb. Part. (Neg.) (ma).

chang 'di yag-po a-yin (?ʌjĩ:)

'I doubt whether this beer is all right.'

Vb. (yin); pre-Verb Part. (Dubitat.)(a).

gas mi-'dug (mindu:).

'It would not matter.'

Vb. ('dug); pre-Verb Part. (Neg.) (mi).

Otherwise, however, i.e. where both Verb and Verbal Particle are exemplified in the Verbal Phrase and the Verbal Particle is represented either (i), solely, or, (ii), in addition to the pre-Verb sub-category,

(ma/mi, a), by the post-Verb sub-category, then the Verb is not ultimate in the order of categories within the Clause but penultimate. It is in fact this, the penultimate, place that is the usual place for the Verb; for by far the majority of Verbal Particles are members of the post-Verb sub-category of Particle. Within the Clause, then, the Verb place is post-Noun, post-Adjective, post-Postposition, etc., but not post-Verbal-Particle except for the small sub-category of Verbal Particle (the pre-Verb) just referred to.

Examples of the Verb occupying the penultimate place in the clause are presented under the two heads: (i), only the post-Verb sub-category of Verbal Particle represented; (ii), both post-Verb and pre-Verb sub-categories represented.

i. post-Verb sub-category of Verbal Particle only
de-nas ka-lon sbug-la tshur phebs-ni (phe:ne), [yang
'das] lo ga-tshod tse thad-kyi-yod-na (the:geje:ne).

'Then, too, about how many years have gone by since you came here to Kalimpong?'

Non-Sentence-final Clause: Vb. (phebs), Part. (ni);

Sentence-final Clause: Vb. (thad), Part. (kyi, yod, na).

de'i sngas-la [yar] lhas-sa rang-la bzhugs bzhugs-pa-vin-na
(ju: ju:bejfi:ne).

'You were living up in Lhasa itself before that, **or** - - - ?'

Vb. (bzhugs, bzhugs), Part. (pa, yin, na).

de-nas ['di-ni] rim-pas phar par skyon-na[s] (**kjɛ̃:nɛ**),

bsgrigs-kyi-yod-red dang (**drigo:r tã**).

'Next, then, after you have printed them off in succession, are they arranged in order?'

Non-Sent.-final Clause: Vb. (skyon), Part. (na[s]);

Sent.-final Clause: Vb. (bsgrigs), Part. (kyi, yod, red, dang).

ii. both post-Verb and pre-Verb sub-categories of Particle chang 'di yag-po a-yin-na (**?ʌjĩ:nə**).

'I doubt whether this beer is all right.'

Vb. (yin), Part.: i. post-Vb. (na); ii. pre-Vb. (a)

da da-rin kha-sa [ka-lan sbug] tsha-ba tsha-sa'i mi-'dug-gas (**minduge:**).

'Now, has not Kalimpong become a hot spot too these days?'

Vb. ('dug); Part.: i. post-Vb. (gas); ii. pre-Vb. (mi).

Although either the ultimate or the penultimate place in order of categories in the Clause and Sentence is, apart from certain exceptions (pp.117-20) occupied by the Verb, it will be recalled that the Verb is not restricted to the penultimate place (p.96). In the following examples criterion 21141 is satisfied (for the penultimate place in the order of categories within

the Clause is occupied by the Verb); but the Verb is at the same time also exemplified elsewhere, either in the Verbal, the Nominal, or the Adjectival, Phrase; e.g.

a. Verbal Phrase

kho-rang khyer yong ma thub-tsang (che: jɕ: ma thu:dzã:),
'Since he cannot bring it,'

Vb. i. penultimate: thub; ii. non-ultimate/penultimate:
khyer, yong.

b. Nominal Phrase

'di'i rkyen-gyi sgang-gas 'di-'dras[-se] rbad klog thub-pa
byas (lɔ: thubɛ tʃhɛ:).

'Having thus made it so that in precisely this way everyone could read.'

Vb. i. ultimate: byas; ii. non-ultimate/penultimate:
klog, thub.

c. Adjectival Phrase

dbyin-ji lung-par bzhugs (ʃu:) spro-po 'dug-gas (dugɛ:).

'Would it be pleasant to live in Britain?'

Vb. i. penultimate: 'dug; ii. non-ultimate/penultimate:
bzhugs.

The exceptions to criterion 211141, i.e. Clauses and Sentences in which the final Phrase is not a Verbal Phrase, are of two types: (i), Clauses in which there is no Verbal Phrase; (ii), Sentences in which one or more

Nominal Phrases follow the last Verbal Phrase of the Sentence as an afterthought; e.g.

i. Clauses without Verbal Phrase

lo sum. lo gsum. 'Three years.'

N. + N.

la py:dze: rä:. [la spus-tshad rang]. 'An actual specimen.'

N. + N. + Post.

ii. Nominal Phrase as an Afterthought

In this type of exception all the Syllables of the Nominal Phrases that follow the Verbal Phrase are characterized by a low and level pitch.

— — — — —
— — — — —
tha thirī: khasā: pinda: tʃhale: rimbe khari

— — \ — — — — —
— — — — —
nAngeje:ne naranze: di.

[da da-ring kha-sang nyin-ltar phyag-las rim-pa ga-re
gnang-gi-yod-na nga-rang-'tshos 'di].

'And now your daily work these days --- what method do you use, --- you yourself in it?'

Vbl. Phrase: Vb. (gnang), Vbl. Part. (gi, yod, na);

Nom. Phrases: N. (nga-rang), Nom. Part. ('tsho-, -s);

N. ('di).

tharbu ndi kharba: l̥ɔbɛ nanbejine nananzɛ: tʃagba:

drigbe nanaju.

dang-po ['di] ga-bar slab-pa [gnang-ba]-vin-gnang
nga-rang-'tsho'i lcags-par de bsgrigs-pa gnang-rgyu.

'First, where did you learn this, --- how to set up your type press?'

Vbl. Phrase: Vb. ([gnang]), Vbl. Part. ([ba], vin, gnang);

Nom. Phrases: N. (nga-rang), Nom. Part. ('tsho-, -'i);

N. (lcags-par); Vb. (bsgrigs), Nomzg. Part. (pa); Vb. (gnang), Nomzg. Part. (rgyu).

The above two types of Clause form exceptions to criterion 21141; there are in addition Sentences to which this criterion cannot fairly be applied: Sentences that are interrupted by another speaker, and perforce left unconcluded; e.g.

phɛ:dʒɛ: mi:ge: tʃhari: kundʒ: rimbu tʃhe: [Interrupted].

phal-cher ma-gas phyag-ris [sku-mdun rin-po che'i]
[Interrupted].

'Usually down there - - - letters - - - His Holiness,

the Dalai Lama's - - -' [Interruption].¹

di mɛmbɛjã: lɛ:sə khy:lə tʃhalɛ: [Interruption].

de min-pa'i[-yang] lhas-sa khul-la phyag-las
[Interruption].

'Apart, too, from that, in the Lhasa district your work
- - -' [Interruption].

211142. Within Word

The previous paragraphs have dealt with the Verb category in the light of its place in the order of categories in the Clause and Sentence; it remains to give some account of the order of grammatical categories within the Word, in order to add to the criteria that distinguish the Verb from the Verbal-Particle, the Nominalizing-Particle, and the Nominal-Particle, categories.

Where both Verb and Verbal-Particle categories can be exemplified from the same Word, the order of categories is Verb -- Particle and, less commonly, either Particle -- Verb, or Particle -- Verb -- Particle. Except in Words of the Particle -- Verb type, therefore, the Verb is pre-Particle, though, in the Particle -- Verb -- Particle

¹ Because of a difference in Phrase order between English and Tibetan, the Verbal Phrase being regularly Sentence-final in Tibetan and commonly non-Sentence-final in English, the interruption sometimes has to be shown as non-Sentence-final in the English translation.

type, it is also at the same time post-Particle. The two orders Particle -- Verb and Particle -- Verb -- Particle are possible only in Words in which the Verb is exemplified by certain members of its Complement sub-category (red, 'dug, vin, yod, byung, yong), the pre-Verbal Particle being exemplified by ma/mi (Negative) and a (Dubitative). Apart from Words of this type the Verb is the initial Constituent in the grammatical structure of the Verb + Particle Word; and the initial Syllable of this Word can be identified as a Verb Syllable.

In Words in which, on the other hand, the Verb and the Nominalizing-Particle categories are exemplified (i.e. in the Nominal Phrase), the order of categories is invariably Verb -- Particle; and if the Nominal-Particle category is also exemplified in a Word of this type, as it may or may not be, then the order of categories is Verb -- Nominalizing-Particle -- Nominal-Particle. Thus, the initial Syllable of the Word may be identified as a Verb Syllable in all such cases.

Examples to illustrate criterion 2III42 in which the Verb not only is pre-Particle in order of categories within the Word but also occupies the initial place, are as follows:

[da] pha-gas zhog-gas chu-tshod bcu'i thog-[nas] phvin-ni

(tʃhĩ:ni), chu-tshod bcu-gcig bar-du las-ka byed
dgos-kyi[-yod] (guŋjə)

'I go there from ten o'clock in the morning, and have to work until eleven o'clock.'

Vb. (phyin), Part. (ni); Vb. (dgos), Part. (kyi, yod).
da-ring 'das sab-kyi[s] sba-bu lags gsol-ja'i gdan-'dren
zhus (ʃo:) gnang.

'The Sahib invited Babu La here to tea to-day.'

Vb. (zhu), Nomzg. Part. (-s; i.e. [ba]);¹
rgyal-blon bstan-bcos zer-[nyan (sepĕ:) 'di] sna-tshogs
par-bkod ra-po gnang-zhag (nã:ʃa).

'- - - we have made sort-of printings of the "Brgyal-blon Bstan-bcos", etc.'

Vb. (zer), Nomzg. Part. (nyan); Vb. (gnang), Vbl. Part. (zhag).

¹ The spelling zhus of the Tibetan text is a phonetic spelling that P. has substituted for the regular spelling (zhu-ba) in order to show that the pronunciation in the utterance is not the phonetically disyllabic ʃuwə appropriate to the Reading Style but the phonetically monosyllabic ʃo: of LT. His choice of spelling is unfortunate; for zhus would ordinarily be taken to symbolize a pronunciation ʃy:. There is in fact no unambiguous way of symbolizing ʃo: in the Tibetan orthography; but the regular spelling zhu-ba, though phonetically ambiguous, has the advantage of not obscuring the grammatical analysis: Vb. (zhu), Nomzg. Part. (ba).

yar chibs-bsgyur gnang-ze (nã:s), zhu-rog (juro:) gnang.

'Please invite him to come up.'

Vb. (gnang), Vbl. Part. (ze); Vb. (zhu), Nomzg. Part. (rog).

In the examples that follow the Verbal-Particle category occupies not only the final, but also the initial, place in the Word, thus making it impossible for the initial Syllable to correspond to a Verb Constituent; but the Verb category is still non-final, and is still pre-Particle as regards certain members of the Particle category (the post-Verb sub-category); e.g.

chang 'di yag-po a-yin-na (ʔʌjĩ:ne).

'I doubt whether this beer is all right.'

Vb. (yin), Vbl. Part.: i. pre-Verbal (a), ii. post-Verbal (na).

da da-ring kha-sa[ng ka-lon sbug] tsha-ba tsha-sa'i
mi-'dug-gas (minduge:).

'Now, is not Kalimpong a hot spot too these days?'

Vb. ('dug), Vbl. Part.: i. pre-Verbal (mi), ii. post-Verbal (gas).

[pha-gas] ga-re yin-na'i khungs dag-po ma-byung-shes
(madʒũ:ʃi),

'When something there has not got a pure source,'

Vb. (byung); Part.: i. pre-Verbal (ma), ii. post-Verbal (shes) [i.e. bzhin].

The two Particles given here (a, mi/ma) are the only two to have been recorded as occupying the initial, and therefore a pre-Verbal, place in the Word. They form a sub-category of Verbal Particle that is colligable within the Word with the Complement sub-category of Verb but not with the Main and the Auxiliary sub-categories.

21115. Tonal Classification

A partial criterion of the Verb category, serving to distinguish it from the Particle and Postposition categories but not from the Noun and the Adjective, is the fact that any member of the Verb category may be given a tonal classification, as being limited to Tone-One or to Tone-Two Words; whence each member may be classified as either a Tone-One-Word Verb (or, more briefly, Tone-One Verb), or as a Tone-Two-Word, or Tone-Two, Verb. This difference between the Verb and the Particle categories has already been considered (pp. 38-41), and is not further discussed here.

2112. Verbal-Phrase (or Verbal) Particle

The criteria of the Verbal-Particle category are three in number: 21121 - 3.

21121. Colligation with the Verb

Within Word limits the Verbal-Particle category is colligable only with the Verb; e.g.

'o-na (one), rgyugs-a (+u:ʔa:).

'Off you go, then.'

Vb. ('o), Part. (na); Vb. (rgyugs), Part. (a).

a-lcags lags, phyag-phebs gnang-byung (nā:dzū).

'Good morning, Auntie.'

Vb. (gnang), Part. (byung).

la mi-'dug (mindu:). 'No, it would not be.'

Vb. ('dug), Part. (mi).

rdo-rje gling-la skyid-po a-yong (ʔajū).

'But would it really be beautiful at Darjeeling?'

Vb. (yong), Part. (a).

Any Constituent that, within the Word, precedes a Constituent identified as a Verb, as in the third and fourth examples above (mindu:, ʔajū), is thereby identified as a member of the Verbal-Particle category; but in the case of Constituents following the Verb within Word limits, the position is not so straightforward; for, while the following Constituents may be Verbal Particles, they may also be Nominalizing and Nominal Particles (21114), and this latter possibility must first be excluded.

With few exceptions (211127) the Verbal-Particle is necessarily colligated with the Verb; and, though it is generally the case that this colligation is within

Word limits, as in all the examples so far given in this section (21121), it is not invariably so. There **are** sub-sections of Verbal Particle that are colligable with the Verb within the Phrase but not within the Word. The Verbal-Particle Words in question, the Negative (ma), the Interrogative (dang), the Imperative (dang/da), the Non-Sentence-final (de'i/te/ta'i/'das/da'i), the Dubitative (gro/'gro), and the Imperative (do), have been considered above (21121-6); and the only one of these to be in need of more detailed consideration is the Negative Particle (ma/mi).

The Negative Particle alternates between colligation with the Verb within Word limits and colligation with the Verb not within Word but within Phrase limits. The following are examples of the colligation of Negative Particle and Verb within Word limits:

kho-'tsho'i [yod-pa-ma-red (**jo:mare**), zer-gyi-'dug].

'It is said they have not any.'

Vb. (yod), Neg. Part. (ma).

byas-tsang, chibs-bsgyur gnang-gi-mi-'dug (**naṅgimindu:**).

'And so he is not coming.'

Vb. (gnang), Neg. Part. (mi).

yag-po red, gsungs-nyan-'tsho tsang-ni mi-'dug (**mindu**).

'There would be absolutely no-one that would say it is

good'.

Vb. ('dug), Neg. Part. (mi).

When colligated not within Word, but still within Phrase, limits the Negative Particle is exceptional in that it is pre-Verbal, and also in that, like the Interrogative and Imperative Particles dang, and the Non-Sentence-final-Clause Particle da'i/de'i, the Constituent in question corresponds to a Word (Verbal-Particle Word, pp. 30-32); e.g.

angos-gnas gsungs-rnams gnang-nga ra[-po 'di-'dras-se gas] go-thos ma byung (ma tʃhũ).¹

'Honestly I had not heard any namthar-singing like that.'

Vb. (byung), Neg. Part. (ma).

mgo dang rkub ra-po ma tshang-shes (ma shã:ʃi),

'When it has not been completed sort-of from head to foot,'

Vb. (tshang), Neg. Part. (ma).

da ma-gzhi [de-ni] gsol-ja-las phebs ma thub-[tsang]
(ma thu:dzã:),

'Now, since, then, he cannot actually come to tea too,'

Vb. (thub), Neg. Part. (ma).

In the above examples it is the Constituent immediately

¹ A careful pronunciation: madʒũ is thought to be usual; cf. madʒũ:ʃi (ma-byung-shes).

following the Negative Particle that is identifiable as a Verb; and this identification is equally valid for Sentences in which the Verb category is exemplified twice or three times in the Verbal Phrase. The Negative Particle may then be both pre-Verbal and post-Verbal at the same time, pre-Verbal in the case of the final Verb of the Phrase, whether Main or Auxiliary, and post-Verbal in the case of the remaining (Main) Verb or Verbs; e.g.

kho-rang khyer yong ma thub-tsang (che: jɔ: ma thu:dzã:),

'Since he cannot bring it,'

Vb. i. pre-Particle (khyer, yong), ii. post-Part. (thub);
Neg. Part. (ma).

bsnam phebs ma thub-pa-red (nam phe: ma thubere).

'He was unable to bring it.'

Vb. i. pre-Part. (bsnam, phebs), ii. post-Part. (thub);
Part. (ma).

log yong ma chog-pa-red (lo: jɔ: ma tʃho:bere).

'He was not allowed to return.'

Vb. i. pre-Part. (log, yong), ii. post-Part. (chog);
Part. (ma).

In all three of the above examples the Constituent immediately following the Negative Particle (ma) in the Verbal Phrase is identifiable as a Verb Constituent.

The colligation of Verb and Negative Particle beyond Word limits is not, however, restricted to the Verbal Phrase: it may also be exemplified from the Nominal Phrase (cf. also p. 103); e.g.

shes phal-cher [cig] nga-[rang-]'tsho sgang-ka log yig-ge
ma shes-pa (ma jimbe) sha-stag byas,

'Supposing, you know, that it is just that we do not all know how to read and write,'

Neg. Part. (ma); Vb. (shes), Nomzg. Part. (pa),

['di] phug rang-gi pha-gas [a-ni] gcig[-gi mi'i] bde-sdug
ma tog[-pas] (ma tokbe:) de-'dras red.

'This, then --- through not taking into account the ultimate welfare of the people there --- this is how it is.'

Neg. Part. (ma); Vb. (tog), Nomzg. Part. (pa),
Nom. Part. (-s).

de'i [yar cig] nga-rang-'tsho cig-por ma yin-pas (ma jimbe:) - - -.

'Through our not being alone up here - - -.'

Neg. Part. (ma); Vb. (yin), Nomzg. Part. (pa), Nom.
Part. (-s).

These last two examples also serve to exemplify another type of colligation in addition to that of Verbal Particle and Verb: Verbal Particle and Nominal Particle.

The Negative Particle ma/mi is the sole member of a Verbal-Particle sub-system that colligates with Nominal and the Nominalizing Particle within the Phrase (but not within the Word, 21141).

21122. Order of Categories

211221. Within Clause and Sentence

Except for the types of Sentence mentioned above (pp. 117-20), the Verbal-Particle category shares with the Verb a claim to the ultimate place in the order of categories in the Word: the Verb is the ultimate category where the Verbal-Particle is either not exemplified in the Verbal Phrase at all, or exemplified only by a member of the pre-Verb sub-system of Verbal Particle (Negative: ma/mi; Dubitative: a (211142); otherwise the Verbal-Particle is the ultimate category, and thus post-Verb, post-Noun, post-Adjective, etc. e.g. kho-rang-'tsho rdo-rje gling-la bsdad-kyi-yod-pa-yin-pa-no (de:gejo:jimbene)).

'Do they live in Darjeeling, do you think?'

Vb. (bsdad), Vbl. Part. (kyi, yod, pa, yin, pa, no).

nga-rang-'tshos zhe-po ma shes-na'i (fĩ:ne), [yin-na'i (fĩ:ne) pha-gas cig] phran-bu'i gang shes-pa 'di[-rgyas 'di] phar --- da cig dge-ba'i bya-ba ra-po sha-stag yin-tsang (jinzã:),

'Even though we do not know much, --- even so, what little we do know of that, further --- now since it is simply an act of merit,'

Vbl. Part. (Clause-final): na'i, na'i, tsang.

de-nas da-rin kha-sa[ng] shes phyag-las 'di ma-[gzhi]
gzhan-pa gas yog-ma-red dang (jo:mari tã).

'Then has he not in fact any other work these days, do you know?'

Vbl.-Part.: [pa], ma, red, dang.¹

As has already been shown (21121), the Verbal-Particle category is not restricted to the ultimate place in Clause and Sentence; for there is a sub-category of Verbal Particle that precedes the Verb (the pre-Verb sub-category, comprising the Negative Particle, ma/mi, and the Dubitative, a, and is therefore either antepenultimate or penultimate according as the post-Verb sub-category is, or is not, exemplified; e.g.

i. penultimate mang-po a-yong (?ajũ).

'There would not be many, I suppose.'

la mi-'dug (mindu:). 'No, there would not be.'

¹ The phonetic spelling yog, for yod-pa, disguises the fact that three members of the Particle category are exemplified in yog-ma-red.

Vbl. Part.: mi.

ii. antepenultimate

de-nas chibs-bsgyur ma gnang-tsang (ma naŋzã:), nga-ra'i
blo pham-po [ra-po zhe-drag] byung.

'Then, since he has not come, I myself am very sort-of
sorry.'

Vbl. Part.: i. antepenult. (ma); ult. (tsang).

da da-ring kha-sa [ka-lon sbug] tsha-ba tsha-sa'i
mi-'dug-gas (mindugə:).

Now, is not Kalimpong a hot spot too these days?'

Vbl. Part.: i. antepenult. (mi); ii. ult. (gas).

The last three examples are examples not only of the Verbal Particle in general but also of the Negative Particle in particular. This sub-category of Verbal Particle is not confined to the Verbal Phrase, but may also be exemplified from the Nominal (Nominalized Verbal Phrase). In such cases no particular place in the order of grammatical categories within the Clause and Sentence may be associated with it; all that may be said is that it immediately precedes the Verb. Examples of the Negative Particle have been given from the Nominal Phrase at p.129 above, and are not repeated here.

211222. Within the Word

Within the Word the Verbal Particle category is

colligable only with the Verb; and the order of these two categories within the Word has already been included in the criteria of the Verb (211142). The effect of this criterion is to identify as members of the Verbal sub-category of Particle all Constituents of the Verb + Particle Word except the first, provided (a), that the Phrase in question is a Verbal Phrase (cf. 21113); and (b), that the Word in question is not one of those in which the pre-Verb sub-category of Particle (pp. 123-4, a, mi) is exemplified; e.g.

sku-zhog ga-dus chibs-bsgyur gnang-nga-yin-na (naŋeji:ne).

'When did you come?'

Vb. (gnang), Part. (nga, yin, na).

gyon-chas bsdog-shig (do:fi).

'You pack my clothes!'

Vb. (bsdog), Part. (shig).

lags yod. deng-sang bzhugs-gdan 'jags 'jags-pa-yin
(dʒa:geji).

'Yes, she is; at present she is staying at home.'

Vb. ('jags), Part. (pa, yin).

Where, on the other hand, the initial place in the Word is occupied by the Verbal-Particle category (pre-Verb sub-category) then all Constituents except the second are thereby identified as members of the Verbal-Particle

category; e.g.

chang 'di yag-po a-yin-na (ʔAji:nə).

'I doubt whether this beer is all right.'

Vbl. Part.: a, na.

tsang-ni mi-'dug (mindu:).

'There is none at all.'

Vbl. Part.: mi.

'don-pa'i lugs-srol mi-yong (mejʃ:).

'It is not customary to mine for them.' (Bell).

Vbl. Part.: mi.

There are in addition the Particle Words, already considered (211127), in which the Verb is not exemplified. The following Particles have been noted in this type of Particle Word: ma/mi, red, 'dug, yod, yin, byung, song, myong/myung, yong, min/man, med/maḍ, 'dra; e.g.

(i. first utterance; ii. reply or agreement)

i. rdo-rje gling-la slebs-byung-ngas (le:dʒuŋɛ:).

'Did you get to Darjeeling!'

Vb. (sleb); Part. (byung, ngas).

ii. lags byung (tʃhũ:). 'Yes, I did'. Part. (byung).

i. phebs-lam-la sku-thang mnyel-po byung-song-ngas
(tʃhũ:sɔŋɛ:).

'Did she get tired on the journey?'

Vb. (byung). Part. (song, ngas).

- ii. lags ma-song (mas⁵). 'No, she did not.'
Part. (ma, song).
- i. sang-nyin yong-gi-yin-pa-'dra (jungyjimbedra).
'He may come tomorrow'.
Vb. (yong); Part. (gi, yin, pa, 'dra).
- ii. lags, 'dra (dra). 'Yes, he may.' Part. ('dra).

21123. Tonal Classification

With very few exceptions the members of the Verbal-Particle category cannot be given a tonal classification; for they are not restricted to Words of one Tone or the other, but may be included in either. Nor is there any need to classify the exceptions (the Non-Sentence-final-Clause Particle 'da'i and the Interrogative Particle dang), which are confined to monosyllabic Particle Words; for the pitch behaviour of these Particle Syllables can be accounted for through Clause Intonation ('da'i: 2121211111, 21212111212, 2121211122;
dang: 21212112112; 21212112121, 5a; 21212112122; 212121121222). In this respect the Verbal-Particle differs from the Verb, the Noun, and the Adjective categories, but not from the Postposition category and the various other sub-categories of Particle (Nominalizing, Nominal, Adjectival, Clausal, 0522). The following examples illustrate the impossibility of

classifying the Verbal Particle tonally:

jo:pejinzã:,	\ - - -	, <u>gyog-pa-yin-tsang</u> ,	1W:	<u>pa</u> , <u>yin</u> ,
me:bejinzã:,	\ - - -	, <u>med-pa-yin-tsang</u> ,	2W:	<u>tsang</u> .
nã:ja,	\ -	, <u>gnang-shag</u> ,	1W:	<u>shag/bzhag</u>
driyja,	\ -	, <u>bsgrigs-bzhag</u> ,	2W:	
tengijimbədra,	- - \ - -	, <u>bstan-gyi-yin-pa-'dra</u> ,	1W:	<u>gyi</u> , <u>yin</u>
jungijimbədra,	- - \ - -	, <u>yong-gi-yin-pa-'dra</u> ,	2W:	<u>pa</u> , <u>'dra</u>

2113. Both Verb and Verbal Particle.

There are also criteria, though of limited application, that serve to distinguish certain Verb + Particle Words from certain combinations of Noun Word and either Verb, or Verb + Particle, Word. These criteria are applicable when, in the Verb + Particle Word the Particle category is exemplified by pa (Past-Tense Particle) and by either red or yin, and possibly by other members of this category, e.g. bros-pa-yin(-pa-no), 'he ran away', ('did he run away?'), while, in the combination of Noun Word and Verb, or Verb + Particle, Word, the Noun is disyllabic, with pa as its second Syllable, e.g. khang-pa, bod-pa, 'house', 'Tibetan', and the Verb in the Verb, or Verb + Particle, Word is exemplified by either red, 'is', 'are', or yin, 'am', 'are', (Complement sub-category)

with the Verbal-Particle category exemplified, if at all, by e.g. pa, pas, pa-no.

The criteria by which the single Word is distinguished from the combination of two Words are pitch features and duration features. In the single, and Verb + Particle, Word a fall in pitch may characterize the initial Syllable (the Verb Syllable) of the Word: Tone-one Word ↘ - -, Tone-two Word ↘ - -; in the combination of the two Words, Noun, and Verb or Verb + Particle, on the other hand, the former (Noun) is not characterized by a fall in pitch, e.g. (Tone-One Word) - -; (Tone-Two Word) - -, and the latter (Verb + Particle or Verb) is, e.g. ↘ / ^, - ↘.

Further, in the single Verb + Particle Word the duration of the Vowel of the Particles red or yin, where either is final in the Word, is short: **re**, **jī**; in the Verb + Particle Word in which the Verb is exemplified by red or yin, and there is no Particle, the duration of the Vowel may be long: **re:**, **jī:**.

Examples of these two sets of criteria are as follows:

Vb. + Part. Wd.

N. Wd., Vb. (+ Part.) Wd.

kh5: phø:bere.khong bros-pa-red.

'He ran away.'

Vb. (bros), Part. (pa, red).kh5: phø:bə re:.khong bod-pa red.

'He is a Tibetan.'

N. (bod-pa); Vb. (red).di khangbere.'di khang-pa-red.

'It (got) filled.'

Vb. (khang), Part. (pa, red).di khangbə re:.'di khang-pa red.

'It is a house.'

N. (khang-pa); Vb. (red).nime ʃa:bere.nyi-ma shar-ba-red.

'The sun rose.'

Vb. (shar), Part. (ba, red).khərā: ʃa:bə re:.kho-rang shar-pa red.

'He is an easterner/a Sherpa.'

N. (shar-pa); Vb. (red).

The pitch and duration features that serve to distinguish a combination of Noun Word and Verb (+ Particle) Word such as that just described from the particular type of Verb + Particle Word contrasted with it in the previous paragraph discharge the same function for another combination of grammatical types of Word: Adjective + Particle in which the Particle category is

exemplified by the (rare) member pa, e.g. gsar-pa, 'new', gcig-pa, 'same', and the same type of Verb, or Verb + Particle, Word as before; e.g.

sa:be re:

gsar-pa red.

'It is new.'

tfigbe riε:

gcig-pa red-pas.

'Is it the same?'

2114. Nominalizing Particle (Nomzg. Part.).

The criteria of this category are stated under the two headings colligation (21141) and order of categories (21142).

21141. Colligation

i. Verb

The Nominalizing-Particle category is colligated within Word limits with the Verb, a characteristic that it shares only with the Verbal, the Nominal, and the Clausal, Particle. This characteristic thus serves to distinguish it from the Noun, the Postposition, the Adjective, and the Adjective Particle; e.g.

nga-'tshos bka'-smol gsung-dus (sundy:) rang-nas,

'When we talk together,'

Nomzg. Part. (dus).

[gzhu]-mag de-ni pha-ga'i skad debs cig bzo-ba (so:)

gnang-gi-yin-pa-'dra.

'Then, in the end, he may perhaps produce a language manual there.'

Vb. (bzo); Nomzg. Part. (ba).

lhas-sa nang-bzhin [bshad-lugs] gsungs thub-yag (thu:ja:)

--- [Interruption].

'For the purpose of being able to speak a type of speech like the Lhasa - - - ' [Interruption].

Vb. (thub); Nomzg. Part. (yag).

ii. Nominal Particle

The Nominalizing Particle is colligable within Word limits with the Nominal Particle, in which respect it differs from the Verbal Particle (but not from any other category, ^{any} of which, including the Verb (21113), is similarly colligible with the Nominal Particle); e.g.

da da-rin kha-sa ['dir ka-lon sbug-la] spyi-ni de skom-sa'i (komsɛ:) 'dug-ka.

'What a shortage of this sugar too there is here in Kalimpong these days!'

Vb.: skom; Nomzg. Part.: sa; Nom. Part.: -i.

da-ga nang-bzhin gzhan-pa'i lugs-srol kho-rang byas-pa'i (tʃhɛ:bɛ:) dbang-gi,

'In precisely this way, thanks to his adopting someone else's customs'

Vb.: (byas); Nomzg. Part. (pa); Nom. Part. (-i).

bod-chas gon-pa-la (khambela) bod-skad rgyab [ma]
shes-[na],

'If, in spite of wearing Tibetan things, he could not speak Tibetan,'

Vb. (gon); Nomzg. Part. (pa), Nom. Part. (la).

21142. Order of Categories

Since the Nominalizing Particle is restricted to the Nominal Phrase, it is debarred from occupying the ultimate place in the order of categories within the Clause except in the circumstances stated at pp. 118-19; but such a characteristic is too indefinite to serve as a criterion. It is the order of categories within the Word that needs to be stated.

Within the Word the Nominalizing Particle is post-Verb, and therefore occupies the second place in the order of categories. Except in Words in which the Nominal Particle is also represented, this second place is also the final place; e.g.

nga-rang-'tsho'i [cig] dus-rgyun pha-gas [phar-tshur]
bka'-mol zhu-dus (judy;) sgang-ni,

'Always, when we chatter away together in it,' [Tibetan]

Vb. (zhu); Nomzg. Part. (dus).

de-ni yig-ge'i skor-la ['di-rgyas 'di] bka'-mol ['dug-se]
zhu-rgyu (ju+u) yod-se,

"Then you must say this much like this on the subject of the writing,"

Vb. (zhu); Nomzg. Part. (rgyu).

[phal-cher] tsha-ra (tshare) gnang-'gro'i-yod-pa-no.

'I suppose he is on the point of finishing it.'

Vb. (tsha [sic; tshar]); Nomzg. Part. (ra).

In Words in which the Nominal Particle is exemplified, or the Clausal Particle, or both, the Nominalizing Particle is pre-Nominal-Particle, and therefore still occupies the second place in the order of categories within the Word, though this second place is no longer the final; e.g.

red zer-[ba-la]-ni (sebeləni), 'di'i skor-la skad-cha
dris-ni, yag-go [red/sung]-nyan-['tsho] (sū:pənzū)
tsang-ni mi-'dug.

'On his saying "yes", there would be none at all that would say "this is good", after they had asked about it.'

Vb. (zer); Nomzg. Part. (ba); Nom. Part. (la); Cl. Part. (ni).

Vb. (gsung); Nomzg. Part. (nyan); Nom. Part. ('tsho).

de-bag-la[-yang cig phal-cher] yig-ge shes-nyan-ni
(ʃi:pɛ:n),

'As for people in this district too that generally know the script,'

Vb. (shes); Nomzg. Part. (nyan); Cl. Part. (ni).

The total number of members of the Nominalizing Particle category to be noted is the following fourteen:

du, (b)stang, ya/yag, nyan, rgyu, ba/pa/nga/ga/ra,
sa, rog, rtsis, da, dwogs, mus, long, thabs.

212. Phonological Analysis

The first phonological features of the Vb. + Part. Word, the Vb. Word, the Part. Word, and the Vb. + Nomzg. Part. (+ Nom. Part.) Word to be considered are the prosodic features, i.e. features characterizing units comprising more than one phonematic unit (Piece, Word, Clause, etc.). The various prosodic systems are stated at 2121; the phonematic systems are stated subsequently, at 2122.

Since its aim is to give a phonological account of the Grammatical Constituents of Words, this thesis is not directly concerned with the prosodic systems statable for such larger units as Clause, Sentence, and Utterance; and the systems stated here relate only to the Word unit and to the Piece, though it is necessary from time to time to make some reference to systems statable for units larger than these; e.g. the Tempo system, which relates to the whole Utterance, and the Intonation systems, which relate to the Clause.

2121. Prosodic Systems

The stating of the prosodic systems is carried out under three heads, the first of which is in fact one of those systems just referred to as statable for units larger than Word and Piece: 21211, Utterance Prosodies: Tempo. The other two heads are: 21212, Word Prosodies, which deals with systems statable for the Word, and 21213, Piece Prosodies, which deals with systems statable for Pieces, generally of two Syllables but also of single Syllables.

21211. Utterance Prosodies: Tempo

The pronunciation of given lexical items may vary according as the rate of utterance is fast or slow; and, since the thesis aims to cover all LT utterances, of whatever rate of utterance, it is essential to illustrate those phonetic differences which are ascribable to differences in tempo, even though the Tempo system is not stated as such. The following are examples of the sort of phonetic difference that the Tempo system is designed to deal with:

zer-gyi-'dug: **siḡidu: siḡdu: siḡdu:** 'they say' (ḡi, ḡ, ḡ);
red-pas: **riβε: riβε:** 'is it' (β, β);
gzigs-pa-red: **siḡbere si:bere si:gere** 'he saw' (iḡb, i:b, i:g).

These and other differences in the pronunciation of identical lexical items are ascribed to differences in the Tempo of the Utterance in which the Word is included; and a two-term Tempo system is set up for the Utterance unit: Fast Tempo (ft); Slow Tempo (st). Though set up for the Utterance, the Tempo prosodic system is exemplified here not from Utterances but from Words.

The features given below are restricted to ft Utterances, and therefore afford grounds for the identification of an Utterance as ft; the features given in brackets for comparison, on the other hand, are common to both ft and st Utterances, and therefore are not criteria:

- i. friction: β ḡ ʒ z sh
 (cf. plosion, affrication b ḡ dʒ dz tsh);
- ii. nasality: m
 (cf. plosion: b);
- iii. syllabic consonant: ḡ ḡ ṇ ḡ ṇ ṛ
 (cf. vowel and non-syllabic consonant: **ḡi ḡi nε bε ṇε rε**);
- iv. whisper: nε
 (cf. non-whisper: nε);

- v. nasal vowel, and dental nasal: ~:n
(cf. nasal vowel: ~:);
- vi. (aperture between close and half-close,
with some centrality): u i
(cf. half-openness: ɔ ɛ);
- vii. (half-closeness + centrality): ə
(cf. openness: ʌ);
- viii. nasality without oral occlusion: ~
(cf. nasality with oral occlusion: ŋ);
- ix. homorganic articulation: nd
(cf. non-homorganic articulation: ŋd);
- x. nasal vowel, and consonant: ~z
(cf. nasal consonant, and consonant: nz);
- e.g.
- i. tʃhiɣijə:pa:, byed-kyi-yod-pa, '(what) are you doing';
cf. ʃigijə:ba:, bzhes-kyi-yod-pa, '(what) shall you eat';
ʃy:ʒe, zhus-byas, 'having asked for'; cf. ce:dʒe,
skyes-byas, 'having originated';
ma shā:ʃi:, ma tshang-bzhin, 'not having been completed';
cf. tsho:gimare, tshogs-kyi-ma-red, 'they will not
assemble';
- ii. jimmedra; cf. jimbedra, vin-pa-'dra, 'it may be';
khəmnə, khebs-na, 'if it should spread'; cf. ɟʌbnə,
rgyab-na, 'if he shuts';

- iii. sigdu:, siydu:; cf. sigidu:, zer-gyi-'dug, 'they say';
tʃhe:n; cf. tʃhe:ne, byas-nas, 'after doing';
 (ma)'gyur-ra, jur; cf. jure, 'changing';
- iv. dugane; cf. dugane, 'dug-ga-na, 'there are, are there not';
chingidu:; chingidu:, mkhyen-gyi-'dug, 'he knows'.
- v. ʃi:n tā: shes dang, 'I must tell you'; cf. nā: tā:,
gnang dang, 'give me'.
- vi. nā:sū, (chibs-bsgyur) gnang-song, 'he went'; cf.
ʃisʃ, shi-song, '(four cats) have died' (G. and R.);
ʃe:gure:s, bshad-go-red-se, '"you must explain"';
 cf. nangore, (phyag-las) gnang-[dgo-red], 'he has to work';
le:ni, sleb-ni, 'when I reached here)'; cf. phe:ne,
phebs-ni, 'since you came'.¹
 cf. also ft thʃ:məpū, mthong-ma-nyung, 'I had never
 seen', and st mapʃ:, ma-myong, 'never'.
- vii. thʃ:məpū, mthong-ma-nyung, 'I had never seen'; cf.
mapʃ:, ma-myong, 'never';
thu:mədzū, thug-ma-byung, 'I did not meet (him)'
 (G. and R.);
 cf. khu:mədzū, khugs-ma-byung, 'I did not sleep (well)'
 (G. and R.);

¹ni, a phonetic spelling (cf. nas), is sometimes written by P. even when the pronunciation of the recorded example would have been better symbolized, even as a phonetic spelling, by nas, i.e. when the pronunciation ne is used.

- bear thub-ma-song (thu:mesũ), 'I was unable to come and see (you)';
- cf. zhal-dkar do ma gtogs, bzhes-ma-song (je:masũ), 'You have drunk only two cups' (G. and R).
- viii. jʃ:ʃ; cf. jone, yong-ba, 'the coming'.
- ix. sundy:; cf. sundy:, gsung-dus, 'when (we) say'.
- x. lo:nã:zu, klog-nyan[-'tsho], 'people that can read';
cf. phyag-las gmang-nyan-'tsho (nã:nenzu), 'people that work'.

In addition to the specifically ft forms given above there are a number of Vb. + Part. Words that include either the Particle ba/pa/ga/nga/ra or the Particle bas/pas/gas/ngas/ras as the first Particle Constituent of the Word; and for these a specifically ft form is paralleled by a common form (c.), appropriate to both ft and st Utterances, and in some cases by a further form appropriate to st Utterances only. For Words of this type the **exponents** are the following sequences of features:

- i. ft: (velarity + nasality), open centrality: ne;¹
c.: (velarity + nasality), labiality ne;
+ plosion), medium centrality: nbe;

¹In the remainder of this section open centrality (e) is distinguished from medium (ə); and i, a, ɔ, and u are distinguished respectively from i, a, ɔ, and u, all having their I.P.A. values.

e.g.

ft **tiŋere** **caŋere** **thəŋere** **thəŋere**;c. **tiŋbere** **caŋbere** **thəŋbere** **thəŋbere**gting-pa-red rkyangs-pa-red nthong-pa-red 'thung-pa-red'he spread' 'he stretched' 'he saw' 'he drank'ii. ft: short duration, (alveolarity +
friction), open centrality:**ere ere yre**;c. long duration, (labiality +
plosion), medium centrality:**ɛ:be ɔ:be y:be**

e.g.

ft **ɟerere** **kərere** **phyrere**;c. **ɟɛ:bere** **kɔ:bere** **phy:bere**rgyal-ba-red bskol-ba-red phul-ba-red

'he won' 'he boiled' 'he offered'

iii. ft: (short duration + the following vowel
qualities: **ɪ ɛ a ʊ**), (alveolarity
+ friction, open centrality)**ɪre ɛre are****ɔre ɔre**;c.: (long duration + the following
vowel qualities: **i e a ɔ u**),**i:be e:be a:be**

labiality + plosion), medium centrality

ɔ:be u:be

e.g.

ft **phɪrere** **tɛrere** **tʃarere** **dʒərere** **kərere**;c. **phi:bere** **te:bere** **tʃa:bere** **dʒɔ:bere** **ku:bere**phur-ba-red ster-ba-red bcar-ba-red 'byor-ba-red bskur-ba-red

'it flew' 'he gave' 'he visited' 'it arrived' 'he sent'

Of the above alternative forms the one specified as ft is restricted to ft Utterances; the other (c.) is common to both ft and st. In the following examples, on the other hand, it is necessary to distinguish forms appropriate to: (i), ft only; (ii), st only; (iii), either (c.). The **exponents** of these three are the following sequences of features.

i. (long duration + the following vowel qualities: i a ɔ u), (velarity + plosion), open centrality	i:gv a:gv ɔ:gv u:gv;
ii. (short duration + the following vowel qualities: ɪ a ʊ ɔ), (velarity + occlusion), (labiality + plosion), close centrality	ɪgbɛ agbɛ ʊgbɛ¹ ɔgbɛ:
iii. (long duration + the following vowel qualities: i a ɔ u), (labiality + plosion), close centrality	i:bɛ a:bɛ ɔ:bɛ u:bɛ;

¹R. also volunteered an example, the only one of its kind, of **-eg-**; **regbere**, regs-pa-red, 'he touched'; but, for the following reasons, it is doubtful whether this should be accepted as LT: (i), it has not the usual corresponding ft and c. forms ***re:gvɛ**, and ***re:bɛ**; (ii), Literary-Tibetan Verbs in **-eg(s)** not infrequently correspond to LT Verbs in **-ag**; and regs probably corresponds to the rag of e.g. rag-byung-ngas, **ra:dʒɔŋɛ:**, 'did you obtain', (G. and R.).

e.g.

ft	si:gere	ʃa:gere	lɔ:gere	ʃu:gere
st	sɯgbere	ʃagbere	logbere	ʃagbere
c.	si:bere	ʃa:bere	lɔ:bere	ʃu:bere

<u>gzigs-pa-red</u>	<u>bzhag-pa-red</u>	<u>klog-pa-red</u>	<u>bzhugs-pa-red</u>
'he saw'	'he put'	'he read'	'he lived'

ft and common forms have to be stated for certain other Vb. + Part. Words and Vb. Words that include Particles other than those (pa/ba/ga/nga/ra, pas/gas/ngas/ras) exemplified above. The Words in question are all **w-Piece** (212132112); and the **exponents** are features and sequences of features drawn from the Verb Syllable:

ft: (long vowel duration +	i. closeness):	u:
	ii. half-closeness):	o:;
c. (short vowel duration + either (i), aperture between close and half-close, with some centrality (ɔ), or (ii), half-openness (ʊ)), and stop or friction.		<div style="display: inline-block; vertical-align: middle;"> <div style="border-left: 1px solid black; padding-left: 5px; margin-left: 10px;"> ɔb ɔp ʊp ʊb; </div> </div>

e.g.

ft:	<u>'ja'</u>	<u>gcig</u>	<u>zub-song</u>	(su:sʃ)	'a rainbow was visible'
c.	"	"	"	(sɔpsʃ)	(Bell, altered);
ft:	<u>shing</u>	<u>gsob-kyi-</u>	<u>'dug</u>	(so:ɡɯdu:)	'the wood is rotting';
c:	"	"	"	(sɔbɡɯdu:)	
ft:	<u>sha</u>	<u>btub-kyi-</u>	<u>'dug</u>	(tu:ɡydu:)	'he is slicing meat'.
c:	"	"	"	(tɔbɡɯdu:)	

The long-vowel qualities **u** and **o** have thus to be associated with the short-vowel qualities **ʊ** and **ɔ** respectively.

The following feature is restricted, in Intraverbal Junction, to Slow-Tempo (st) Utterances, and is therefore a st criterion, while the feature given in brackets for comparison is common to both st and ft Utterances:

voicelessness:	kb ɐ:t ɲt;
(cf. voice:	gb ɛ:d ɲd);

e.g.

ma tɔkbe: ma tog[-pas] 'not counting'; cf. **drigbe**, bsgrigs-pa, 'setting up'. **ʃɐ:tā:**, shod-bstang, 'manner of speech', cf. **ʃɛ:dā:**, bshad-bstang, 'manner of speech'. **nantangɪ**, gnang-bstang[-gi], 'of (our) manner of making'; cf. **nanḍā:**, [gnang-bstang], 'manner of making'.

21212. Word Prosodies: Tone

The only prosodic system to be stated for Word units is the Tone system. This system is most satisfactorily stated for the Word as a whole, and not for the individual Syllables of which the Word is composed, because the pitch behaviour of the component Syllables is interdependent, and the pitch of each cannot conveniently be stated in isolation from the pitch

of the others. Any of the grammatical types of Word that are being treated in section 21 (p. 96), with the exception of Particle Words (211121 - 7), may be classified by reference to a two-term Tone system, as being either a Tone-One Word (1W) or a Tone-Two Word (2W). The criteria for this analysis of Words into 1W and 2W are: (212121), pitch features; (212122), certain Word-initial features (voice + plosion, voicelessness + non-aspiration + plosion, etc.) that correlate with the regular differences in pitch behaviour stated under the former criterion. By appeal to one or other criterion, or to both criteria at once, it is generally possible to identify any Word in an utterance as either 1W or 2W; though, in certain circumstances, a Word may provide no criteria of either type, and may therefore be, as far as that particular context is concerned, tonally unidentifiable.

212121. Pitch Features

This thesis is not directly concerned with the prosodic features of Clause units, and therefore with Intonation systems; but, in practice, it proves impossible to state the pitch exponents of Tone-One and Tone-Two Words without also referring to Clause Intonation: a given Tone-One or Tone-Two Word may have not merely a single possible pitch pattern but two or

more; and the various possible patterns are best considered in relation to, and, in fact, as exponents of, Clause Intonation. This difficulty of statement applies especially to the component Word types of the Verbal Phrase (Vb. + Vbl. Part., Vb., Part.); for, as the final Phrase of the Clause, the Verbal Phrase is particularly concerned with Clause Intonation, and is especially characterized by the phonetic exponents of the various terms of the Intonation systems. While it is true that the ~~Emphatic-Non-Emphatic~~ Intonation System does indeed apply to the Vb. + Nomzg. Part. (+ Nom. Part.) Word, this type of Word is confined to the Nominal Phrase, and therefore, apart from certain stated exceptions, not final in the Clause; it is therefore considered separately from Verbal-Phrase Words, at 2121215.

In the case of the types of Word comprised in the Verbal Phrase (Vb. + Part., Vb., Part.) there are good grounds, both phonological and grammatical, for distinguishing ~~non~~-Sentence-final from Sentence-final Clauses: the grammatical grounds are that there is a sub-category of Verbal Particle that is confined to the non-Sentence-final Clause (and is therefore termed the Non-Sentence-final-Clause sub-category); the phonological

grounds are that Intonational differences make it difficult to combine the pitch **exponents** of 1W and 2W in the non-Sentence-final and in the Sentence-final Clause in a single statement. The **exponents** of the two terms of the Tone system are therefore stated separately, firstly (at 2121211) for the Non-Sentence-final, and, secondly (at 2121212), for the Sentence-final Clause.

2121211. Non-Sentence-final Clause

In the Non-Sentence-final Clause the Verbal Phrase may contain Words of all three types, Vb. + Part., Vb., and Part.; and it would be possible to account for the pitch behaviour of each type of Word in turn; but it is more economical to deal with all three types up to a point simultaneously. These economies in statement arise out of the fact that the Particle Word is invariably associated within the Verbal Phrase with a Word of one or other of the other two types. Thus, when the Particle Word is associated with a (preceding) Verb + Particle Word, its pitch behaviour can most conveniently be dealt with at the same time as Tonal **exponents** are stated for Tone-1 and Tone-2 Verb + Particle Words; similar advantages are to be gained from a combined statement for Verbal Phrases in which the Particle Word is associated with the Verb Word.

The most economical order of statement is to treat

together (in 2121211) Verbal Phrases that include (i), Vb. + Part. Word; (ii), Vb. + Part. Word and Part. Word, provided that the Particle of the Particle Word is a member of the Non-Sentence-final-Clause sub-category of Particle (only de'i; the Negative Particle ma is not confined to the Non-Sentence-final Clause); (iii), Vb. Word and Part. Word, with the same proviso as under (ii); (iv), Vb. Word, provided that it is Clause-final. Other Verb Words, i.e. Verb Words that are followed within the Clause by another Verb Word, by a Verb + Particle Word, or by a Negative-Particle Word, whether contained in a Non-Sentence-final or in a Sentence-final Clause, are dealt with not in this section but in section 2121213; for in their case the Tonal **exponents** can be given an identical form of statement regardless of whether the Verb Word is contained in a Non-Sentence-final or a Sentence-final Clause; and a single statement suffices for both.

Separate statements are made for those Non-Sentence-final-Clause-Particle Words which are confined to the Non-Sentence-final Clause and those Verbal-Particle Words which may be contained in a Non-Sentence Clause but are not confined to it (the Negative-Particle ma), the former being dealt with in section 2121211 and

the latter in 2121214.

The Verbal-Particle sub-category set up for the Non-Sentence-final Clause comprises the following twelve members: na, 'if'; nas/ni, 'after'; byas, 'after', bzhin, 'after'; tsang, 'because'; de'i/te/ta'i/'das/da'i, 'but'; dus, 'when'; ga/kag, 'in order to'; ze/se, 'that'; med/mad, min/man, and yang/-'i/-s, the last three of which occur only in Clauses in which they are preceded by na, e.g. yod-na-med, 'whether there are or not', yin-na-min, 'whether it is or not'; yin-na(s)-yang, yin-na'i, yin-nas, 'although it is'.

One of the ten Particle Syllables (de'i/te/ta'i/'das/da'i) differs from the others in that its Junction relations with the preceding Syllables are Interverbal (11132); and de'i is therefore treated as a Particle Word. As such, it may not be classified tonally; but, even though no Tonal **exponents** may be stated for it, it is convenient to include it in section 21212. The (two) reasons for including it in this section are, as explained above: (i), that de'i may be associated with a (preceding) Verb + Particle, or Verb, Word the Tonal **exponents** of which are stated here; and (ii), that, even though Particle Words are not given a Tonal Classification, their pitch behaviour has to

nevertheless be described, and the most convenient place for this description may be, as here, when dealing with Clause Intonation.

The Word that immediately precedes the Particle Word de'i may be a Verb Word (though only of the Verb Complement sub-category), e.g. 'dug de'i, med de'i, or a Verb + Particle Word (of any sub-category), e.g. mthong-byung te, go-gi-'dug te. In the latter case the Particle category is exemplified by such of its members as byung, gi, 'dug. These three, and other, Particles may be included in the Sentence-final Clause, and are therefore termed Sentence-final-Clause, or Sentence-final, Particles; but, as is clear from the above examples, they are not thereby excluded from the non-Sentence-final Clause. On the contrary, the following Sentence-final Particles may be included in Non-Sentence-final Clauses in which the Non-Sentence-final-Clause sub-category of Particle is also represented, by e.g. tsang, na'i; vin, min, yod, med, kyi/gyi/gi, pa/ga/nga/ra, dgos/go, e.g. g.yog-pa-vin-tsang (pa, vin), springs-dgos-yod-na'i (dgos, yod); these, and the following, may occur in a Clause that includes de'i: yong, song, byung, shag/zhag, ma/mi, red, 'dug, myong/nyung, 'dra, 'gro/gro, e.g. go-nyung ta'i, bsam-byung

da'i, gnang-song 'das; and any Sentence-final Particle may be included in a Non-Sentence-final Clause that also includes the Non-Sentence-final Particle ze/se/zer, and is thus an example of reported speech; i.e. any of the preceding Particles, and in addition, ka (Interrogative), shig, do, a (Imperative), a (Dubitative), pas/gas/ngas, no, dang, (Imperative), dang (Interrogative), na, pa/ga/nga (Interrogative), pa/ga/nga (Declarative), e.g. byed-go-red-se (go, red), gnang-nga-red-zer, yod-pas-[se](pas). The term Sentence-final-Particle is thus used to cover a sub-category of Particle that differs in distribution from the Non-Sentence-final, and is, as it were, non-Non-Sentence-final; it cannot be taken to imply that its members are restricted to the Sentence-final Clause.

There are two Particles that do not lend themselves to classification in terms of Sentence-final and Non-Sentence-final: the Negative Particle ma/mi, which has already been mentioned, and the Alternative-Interrogative (pa/ga/na). The Alternative-Interrogative Sentence generally contains two Clauses in each of which the Alternative-Interrogative sub-category of Particle is

exemplified.¹ The former of the two Clauses, the first alternative, is usually characterized by a Non-Sentence-final pitch pattern, and therefore, like any other Non-Sentence-final Clause, implies that there is a further Clause within the Sentence;² but it differs from other Non-Sentence-final Clauses in that it implies that that further Clause also contains an example of the Alternative-Interrogative Particle. Since the Alternative-Interrogative Particle is not confined to the Non-Sentence-final Clause, it clearly cannot be classified as Non-Sentence-final; and yet the Alternative-Interrogative Sentence requires that this Particle be exemplified in the Non-Sentence-final Clause, whether or not it is also exemplified in the Sentence-final.

The Alternative-Interrogative Particle is therefore excluded from classification in terms of Sentence-final and Non-Sentence-final Clause; but it is, even so, convenient to give examples of the pitch behaviour of

¹ Exceptionally, the Alternative-Interrogative Particle is not exemplified in the Sentence-final Clause; e.g. phyag-dpe 'di [nga-rang-'tsho'i] debs-kyi lugs-srol yin-na, yang [nga-'tsho'i] bod-na'i phyag-dpe rang. 'Is this book after the manner of our bound books (debs), or really one of our Tibetan unbound books (phyag-dpe)?'

² For an exceptional pitch pattern, see p. 177.

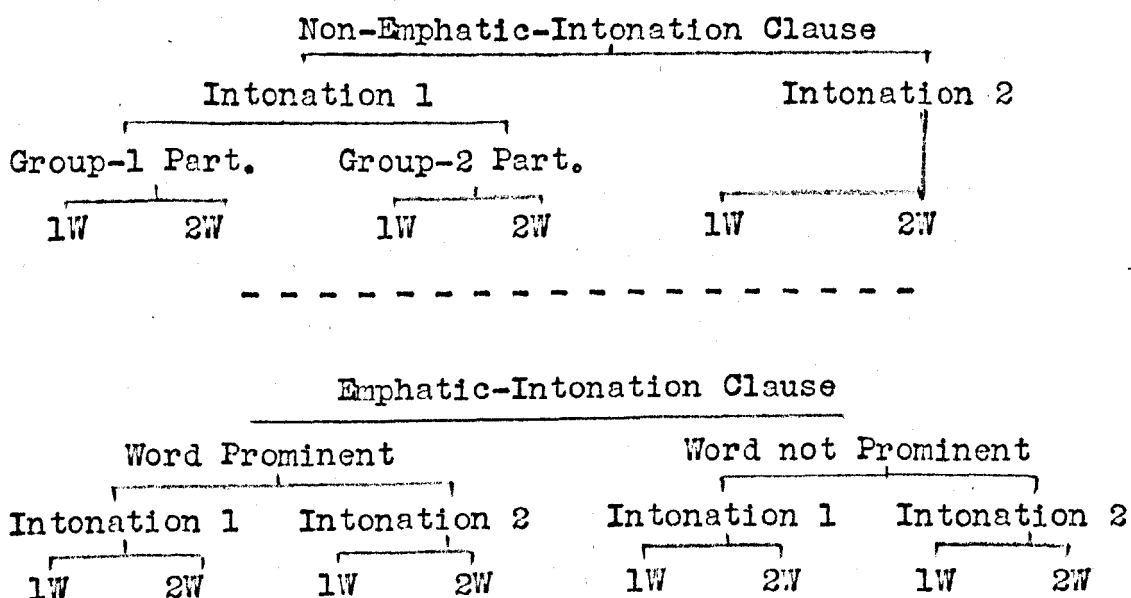
Words that include it either, in the case of the first alternative, with the other examples of the Non-Sentence-final Clause (2121211), or, in the case of the second alternative, with the Sentence-final Clause (2121212).

The possible pitch patterns of the Particle Word de'i vary with the Intonation of the Clause; those of the Verb + Particle Word vary with the Intonation of the Clause, the Tone of the Word, and, to some extent, with the particular member of the Particle category. In order to account for these pitch patterns it becomes necessary to refer to Clause Intonation of a different type from that which has already been introduced (Sentence-final, Non-Sentence-final). For Non-Sentence-final Clauses a further two-term Intonation system is established: (21212111), Non-emphatic; (21212112), Emphatic.

The criteria of the two terms of this Intonational system are not restricted to the pitch behaviour of the Particle Word and the Verb + Particle Word alone, or even of the component Words of the Verbal Phrase: the system is set up in an attempt to account for inter-related variations in the pitch behaviour of all the Words in the Clause and Sentence; and, though attention in the examples in this section is focused

on the Verbal Particle Word and the Verb + Particle Word, the pitch behaviour of these types of Word is to be considered not in isolation, but in association with the pitch behaviour of all the other Words of the Clause and Sentence, and especially the Word or Words immediately preceding and following them.

The order in which the pitch behaviour of such of the Grammatical Constituents of Words as are members of the Verbal Phrase in Non-Sentence-final Clauses (but with the exception of certain Verb Words; p.156) is dealt with appears in the following figure:



21212111. Non-emphatic

In Non-Emphatic-Intonation Clauses the **exponency** of

Tone-one and Tone-two Words **includes:**

1W: high pitch characterizing the Verb Syllable;

2W: low " " " " " .

As far as the Non-Sentence-final Clause alone is concerned, these **features** might equally well have been stated as: 1W, Word-initial high pitch; 2W, Word-initial low pitch; but the former wording has been adopted here in order that the same form of statement may stand for both Sentence-final and non-Sentence-final Clause (cf. pp. 196-7).

Additional features of the pitch behaviour of the Word, as, for example, whether the high, or low, pitch of the Verb Syllable is level or falling, and what is the pitch behaviour of the Particle Syllables of the Word, if there are any such Syllables, do not serve as Tonal criteria; but that is not to say that they are of no importance. On the contrary, 'renewal of connection' with Tibetan utterances clearly requires more than the slender information provided by the Tonal criteria: the pitch behaviour of Particle Syllables must also be stated; and more detailed information must be given about the Verb-Syllable high and low pitches -- under what conditions they are

level, falling, etc.¹ The need for this additional information is the reason for such headings in the preceding figure as Intonation 1, Intonation 2, Group-1 Particle, etc.

For Non-Emphatic-Intonation Clauses a further Intonation system, of two terms, is established, the two terms being named (Non-Emphatic) Intonation 1, (212121111), and (Non-Emphatic) Intonation 2 (212121112). The criteria by which the two terms of this system are distinguished are here associated solely with the final Word of the Clause, whether Verb + Particle Word, Verb Word, or Particle Word, and are particularly concerned with the final Syllable. This thesis is concerned with Clause Intonation only to the extent to which it provides a framework within which all differences in the pitch behaviour of the Grammatical Constituents of Words can be accounted for; but it may be said in passing that a Clause-final high, or

¹For renewal of connection, see W.S. Allen, 'Retroflexion in Sanskrit: Prosodic Technique and its Relevance to Comparative Statement', BSOAS (1954), XVI, 3, 556, n.6. Allen is here referring to a concept of J.R. Firth's, which originated in a discussion with A. Sinclair, author of The Conditions of Knowing (London, 1951): that the validity of the categories established must be tested by renewal of connection with utterances in the language concerned.

rising, pitch is the criterion of Intonation 1, and a Clause-final low level pitch of Intonation 2.

212121111. Intonation 1

In Non-Emphatic Intonation-1 Clauses the high (1W), or low (2W), pitch characterizing the Verb Syllable is (i), level where the pitch of the following (Particle) Syllable is high, and (ii), falling where it is low. These differences in the pitch behaviour of the Words in which they are exemplified makes it necessary to group the Non-Sentence-final-Clause Particles as follows: (a), Group 1: na, 'if', including na-yang, 'although' (with phonetic spellings nas-yang, na'i, and nas), and na-ni, 'as for if'; dus, 'when'; tsang, 'because'; ga/kag, 'in order to'; de'i/te/ta'i/'das, 'but'; (b), Group 2: nas/ni, 'after'; byas, 'after'; bzhin, 'after'. The Particle zē/se has not been recorded in Clauses of this Intonational type; nor have min and med (see Intonation 2, 212121112).

a. Group-1 Particles (na, dus, tsang, etc.)

The pitch of the final Syllable of Clauses containing one of these Particles is high (cf. the rising pitch of the Group-2-Particle patterns, at section b); and the pitch pattern of the final Word

(or, in the case of Clauses containing the Particle Word, de'i, of the final Words) is one of the following, depending on the number of Syllables:

Tone One: ---, \- (-) -;
 " Two: i. --- (-), ii. \- (-) -;

i.
 i. Two Pitch Marks

Tone One

thande lo tshundy:, da-lta lo chung-dus,

'Now, while you are still young,'

Tone Two

garanzø: tshik phyji: di pha: pha:gjəp tshimbu dindre: tshū:ne,
nga-rang-'tsho'i [cig] bod-yig de [phar bar-]khyabs chen-po
['di-'dras] byung-na,

'If there should come about as great an expansion of this Tibetan of ours as this,'

Three Pitch Marks

Tone Two

me:, seneni, med, zer-na-ni,

'As for if you say: "we have not",'

ii.

Three Pitch Marks

Tone One



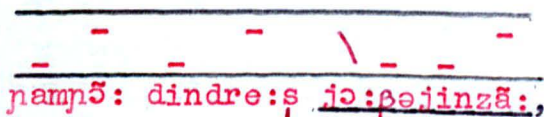
thoŋda thōdzū: de,

mthong-ta mthong-byung te,

'I did indeed see him, but - - -.' (Bell).

Four Pitch Marks

Tone One



namṣ: dindre:s jo:pejinzā:,

[nyams-myong 'di-'dras-se g-yog-pa-yin-tsang,]

'Since you have in this way covered yourself with experience,'

Tone Two

din phige: tṣiyi bē: tshē: tā simbesi mē:bejinzā:,
de-ni pha gas cig[-gi rbad] tshad dang 'dzin-pa[-ze]
med-pa-yin-tsang,


'Then, since there, certainly, we had no hope of preserving a proper balance, so to speak,'

For further Intonation-1 examples see App. III, 212121111.

The pitch patterns given here also apply to the first alternative of Alternative-Interrogative Sentences, the Particle being pa/ga/na; e.g.

Two Pitch Marks

Tone One



cherā: l̥e:sa: phe:ba:, ʃan̥zɛ: phe:ba:.


khyed-rang lhas-sar phebs-pa, rgyal-rtser phebs-pa.

'Did you come to Lhasa, or did you come to Gyantse?'

For the pitch behaviour of the latter alternative see 2121212111, b.


Tone Two


tʃhabi di ɲananzɛ: debgi lɔysɛ: ʃi:na:, ʃā: ɲanzɛ:


phøbɛ: tʃhabi rā:.

phyag-dpe 'di [nga-rang-'tsho'i] 'debs-kyi lugs-srol
yin-na'i, yang nga-rang-'tsho'i bod-pa'i [phyag-dpe rang].

'Is this book after the manner of our bound books, or really one of our Tibetan unbound books?'


thu kule: khagu duga, ʃā: lɛ: ʃa: n̥aŋqiduga.

thugs sku-las khag-po 'dug-ga, yang las lha-[ba ɲang-
gi-'dug-ga].

'Would it be difficult, or do you do it more easily?'

The pattern given here is not, however, the only possible pattern for the first of the alternatives: see also

Intonation Two, 212121112, ii.

Four Pitch Marks

Tone One,

le:sa: phe:beriba:, janze: phe:beriba:.

lhas-sar phebs-pa-red-pa, rgyal-rtser phebs-pa-red-pa.

'Did you come to Lhasa, or did you come to Gyantse?'

Tone Two

di: ne:lə ja: le:se rä:lə fu: fu:bejī:na:, [Interruption].

de'i sngas-la yar lhas-sa rang-la bzhugs bzhugs-pa-yin-na,
 [Interruption]

'Before this, were you living up in Lhasa itself, or
 - - -' [Interruption].

b. Group-2 Particles (nas/ni, byas, bzhin)

Tone One:

" Two:

In these examples of disyllabic Words it will be seen that the Verb Syllable is characterized by a fall in pitch, and the Particle Syllable by a rise (cf. the level pitch of the Group-One-Particle disyllabic examples in section a, i:

1W, ; 2W, ; whence the need for **two** categories of Particle):

Tone One

- - - / \ /
tha tharē: ja: le:ni, da da-ran yar sleb-ni,

'Now, having on this occasion reached there,'

- - - / \ /
dine: ndi khā: tsha:ni, de-nas 'da'i khang tshar-ni,

'Then, when this has been filled right up,'

- - - / \ /
di fu:gule ja: pha: lu:ni,

de bzhugs-gu-la yar phar blugs-ni,

'Having tipped this away into the back,'

Tone Two

- /
[he:fi:], byas-bzhin, 'In that case,'


The pitch patterns given in section (a) (1W,
2W,) may be used to distinguish the forms
na-yang/nas-yang/na'i/nas, 'although', from nas/ni,
'after', which may otherwise be homophonous (ne:).
Where the pitch pattern is that appropriate to Words
that include one or other of the Group-1 Particles

(section a), **ne:** must be identified as na'i/nas, 'although', 'even if', which alternates with **ne+jã:**, na(s)-yang, e.g. **ʃi:~ne:**, shes-ni, 'as you know';¹ **_ji:~ne:**, vin-na'i, 'however'; **_tha:~ne:**, dar-nas, 'though it should spread'; and where the pattern is the one given above as appropriate to Words exemplifying Group-2 Particles, then **ne:** must be identified as nas/ni, 'after'; e.g. **ʔshĩ:,ne:**, phyin-ni, 'after going'.

It is convenient to include in this section, with the Vb. + Part. Words in which the Particle is a Group-2 Particle, those Verb Words, which, like the Particle Syllable, are characterized by a rise in pitch (↗). Such examples are restricted to the first alternative of Alternative-Interrogative Sentences. The Verb in examples of this type can only be a member of the Verb-Complement sub-category of Verb, all the members of which are confined to the Tone-Two Word; and it is therefore not possible to cite Tone-One words for comparison.

¹ni is incorrect here, and should be na'i, nas, or na(s)-yang.

Tone Two


 nu:gu di kjerangi re:, ne: re:.

smyu-gu 'di khyed-rang-gi red, nga'i red.

'Is this pen yours, or is it mine?'


This rising-pitch pattern applies only to the first of the alternatives; for the pitch behaviour of the second see 2121212111, a, i.

212121112. Intonation 2

In Intonation-2 Clauses the Word-initial high and low pitches that serve as criteria of 1W and 2W respectively are also falling. The possible pitch patterns are:

Tone One: 

Tone Two: i.  ii. 

i. The pattern  is appropriate to Words in which the Verb category is alone exemplified; these Words are necessarily monosyllabic. It is not possible to cite a Tone-one example to match the Tone-two; for the Verb category can be represented only by byas, which is a Tone-two-Word Verb; e.g.

səsø: lʊŋbe: b̩aru:lə kje:ji: b̩aru:lə ja: thã:fj:

tʃhɛgɔres, tʃhɛ:,

so-so'i lung-pa'i [sba-rub-la] skad-yig [sba-rub-la yar]
dwangs-shes byed-go-red-se, byas.'

'Having said that one should energetically study one's own country's language energetically.'

(Section ii is also exemplified here, by $t_{fegores}^h$).

ii. The patterns in this section are appropriate to polysyllabic Words as follows, with no need to distinguish Group-1 and Group-2 Particles:

Two Pitch Marks

Tone One

dine: pime tʃinɲi: sõ:ne,

de-nas nyin-ma [gcig-gnyis] song-nas,

'Then, after a day or two have gone by,'

na tɛ:mu taga, drugejĩ:.

nga ltad-mo lta-ga, 'gro-gi-yin.

'I will go to see it.' (G. and R., altered).

Tone Two

on ji:ge: tʃik di naŋʃu tʃhū:ne,

'o-na ya-ga'i gcig [de] gnang-rgyu byung-na,

'Then, if this should turn up there for doing,'

na rɛ:tʃe nɔɔa, drugeji:.

nga ras-cha nyo-ga, 'gro-gi-yin.

'I am going to buy cloth.' (G. and R.)

Three Pitch Marks

Tone Two

cimɛ: di druybe ji:nemī:¹

skyes-dman 'di 'brug-pa yin-na-min,

'Whether this woman is Bhutanese or not,'

Four Pitch Marks

Tone One

dini sa:pju:nzu, tʃakba: ra: thəmbejinzā, gam tsā:me.

[de-ni gsar-'gyur]-'tsho, lcags-par [rang thon-pa-yin-
tsang, gam tsang-ma.]

'Very clear, then, these newspapers, since the type-press started.'

¹ mī: is a spelling pronunciation (LT mɛ:).

Tone Two

dewa pha: tʃ: ringu de:bejinzā,

de-pag phar rgyun ring-po bsdad-pa-yin-tsang,

'Since they have lived for some length of time in these parts,'

For further Intonation-2 examples see App. III,
212121112.

In the example of the Non-Sentence-final Particle ga/kag in an Intonation-2 Clause (naga) the fall in pitch that is the characteristic feature of Intonation 2 is associated with the Verb Syllable, which is also the initial Syllable. Examples have however also been recorded of ga/kag in Tone-Two Words in which the fall is associated not with the Verb but with the Particle, and final, Syllable; e.g.

dine: tʃik namsā: dini mi tʃemba:gi tʃhʌlu:le turya:,

[de-nas cig lam-sang de-ni] mi gzhan-pa-gi cha-lugs[-la]

'gyur-kag,

'Next, then, in order to change at once to the customs of some other people,'

\ _ _ - _ \ - - \ _
 trəmle khare: si:qa, the:giJimba.

khrom-la ga-re gzigs-ga, thad-kyi-yin-pa.

'Why are you going to the bazar?' (G. and R., altered).

- - \ - - \ -
 khare tʃheqa, drugeJimba.

gare byed-ga, 'gro-gi-yin-pa.

'For what purpose are you going?' (G. and R., altered).

The same pattern has also been once recorded for
 a Tone-two Word in which the Particle is dus:

\ / - \
 khə: tʃe: dundy:,

khos drel brdungs-dus,

'While he was beating the mules,'

It is difficult to account for this difference in
 the pitch behaviour of Tone-two Words comprising the
 Particles ga/kag and dus in Intonation-2 Clauses.

The Intonation-2 patterns are also, though
 infrequently, appropriate to the first alternative of
 the Alternative-Interrogative Sentence; e.g.

Tone Two

tʃagba: thage jī:na:, jā: dōba: jī:ne.

lcags-par da-ga vin-na, yang rdo-par vin-na.

'Is it really a type press, or is it a litho press?'

(For vin-na in the second alternative, see Emphatic Intonation, 2121212221, Two Pitch Marks; and for vin-na in an Intonation-1 Clause, see 212121111, a).

21212112. Emphatic Intonation

In Emphatic-Intonation Clauses one of two types of pitch pattern is possible for a given Vb. + Part., or Vb., Word according as that Word is (212121121), or is not (212121122), prominent. When not prominent, its component Syllables are characterized by a pitch that is level and low, and the Particle Word (de'i), if exemplified, is characterized by a high pitch; when prominent, the Verb Syllable of the Word is characterized by a fall in pitch; and the final Syllable, or, if exemplified, the Particle Word de'i, may or may not be characterized by a rise; e.g.

Word prominent: \ - (- -), \ - (- -); \ (- -) /, \ (- -) /;

Word not prominent: (- - -) -, (- -) -.

212121121. Verb + Particle Word, or Verb Word, Prominent.

As will have been observed from the pitch patterns given in the previous paragraph, in which 1W and 2W patterns are given alternately, the Tonal criteria are as stated for the non-Emphatic Clause (21212111), and the patterns appropriate to the Verb + Particle Word in Emphatic Clauses in which it is prominent do not differ much in general outline from the patterns appropriate to Non-Emphatic Clauses. There is however one important difference: the absence from this type of Emphatic Clause of the two patterns (1W) — — and (2W) — —, appropriate to disyllabic Words in which the Particle is a member of Group 1 (212121111, i); with the result that these two patterns are a criterion of Non-Emphatic-Clause Intonation. This does not mean that Words that include a Particle drawn from Group One are restricted to Non-Emphatic Clauses, but merely that in Emphatic Clauses, such Words are characterized by a different pattern: the initial Syllable of the Word is characterized by a fall in pitch: ↘, ↘, ↘, ↘. Of these patterns, two, the falling-rising patterns (↘, ↘), are identical with the patterns that, in Non-Emphatic Clauses, are the reason for distinguishing Group-Two from Group-One

Particles (212121111, ii); but no such grouping of
 Particles is required in Emphatic-Intonation Clauses
 in which the Verb + Particle Word is prominent. Even
 so, however, it should be recognized that, although
 here Words that include a Group-One Particle may share
 this same falling-rising pattern with Words that include
 a Group-Two Particle, the implication of the pattern is
 not necessarily the same for both of them: for the
 Group-One-Particle Word the falling-rising pattern must
 imply Emphasis; for the Group-Two-Particle Word it
 may, but does not necessarily, imply Emphasis, and
 other features have also to be taken into account.
 These additional features, which are thus criteria of
 Emphatic as against Non-Emphatic Clause Intonation, are: that
 in the case of the Emphatic Clause the fall in pitch
 associated with the initial Syllable of relevant Tone-one
 Words is from a higher pitch; this fall in pitch may be
 preceded by a slight rise, especially noticeable in
 Tone-Two Words; and the prominent Word may owe some of
 its prominence to the association of low level pitch with
 the preceding Word, following Word, or both. It may
 well be this last feature that contributes most to the
 prominence of the prominent Word.

As in the case of the Non-Emphatic Clause, so also

here a two-term Intonation system is recognized, the criteria of which, incidentally, are the same as those of Non-Emphatic Intonation 1 and 2 (21212111). These two terms are also named Intonation 1 (2121211211) and Intonation 2 (2121211212).

2121211211. Intonation 1

Here, the high pitch characterizing the Verb Syllable of Tone-one Words and the low pitch characterizing the Verb Syllable of Tone-two Words are also either falling or rising-falling. The pitch patterns of the relevant Words are:

Tone One: \(-) /, ^(-) /;

" Two: \(-) /, ^(-) /;

Tone One

- \ - - - \ /
dine: tʃhipʃu: ma nanzā:,

de-nas chibs-bsgyur ma gnang-tsang,

'Then, since he is not coming,'

- \ - - - \ /
di go tã kup rɛbu ma shā:ʃi:,

[de] mgo dang rkub ra-po ma tshang-bzhin,

'And when it is not complete from head to foot, sort of,'

\ - /
ʃinejā:, shi-nas-yang,

'Even if you die,'

Tone Two

di jinzā:, ['di] vin-tsang, 'Since this was so,'

ʃhɛ:ʃi:, byas-bzhin, 'Well, then,'

khū: thagu mɛdʒū:ʃi:,
khungs dag-po ma-byung-shes,¹

'When the source is not of good quality,'

No examples of ze/se have been recorded in
 Intonation-One Clauses.

2121211212. Intonation Two

The high, or low, pitch characterizing the Verb
 Syllable, falls, just as for the Intonation-One
 Clauses (2121211212); the final Syllable is characterized
 not by a rising, but by a low and level, pitch:

Tone One: └─ (─ ─), └─ (─ ─);

" Two: └─ (─ ─), └─ (─ ─);

Tone One

garanzə ʃiβu ma ʃi:ne, nga-rang-'tshos zhe-po ma shes-na'i,

'Even though we may not know much,'

¹ -shes is taken to be a mis-spelling for -bzhin.

saŋtʃu:l rimbɛ rɛbu nã:sũ de,

gsar-'gyur-la rim-pa ra-po gnang-song 'das,

'He did a sort-of series in the newspaper, but'

dinzɔ: chɛ:ba: gange sɛ:fip thagbu rɛp phi:ge fɛ:gores,

fy:.

de-'tsho'i 'khyad-par sgang-ga gsar-zhib dag-po ra-po
[pha-gas] bshad-go-red-se, - - - zhus.

'They requested - - - that I should give a detailed
 and accurate explanation there of all the differences
 between these.'

Tone Two

jɪ:ne:, [yin-na'i], 'However,'

ce:ba: dindres sɔ:dʒɛ,

skad-par 'di-'dras-se bzos-byas,

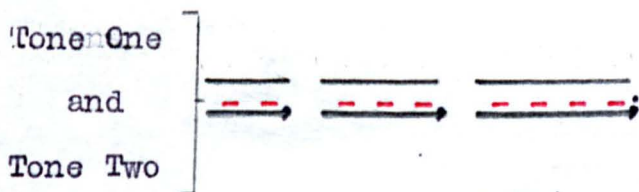
'Having made recordings like this,'

tʃhɛ:fɪ, byas-bzhin, 'In that case,'

212121122. Verb + Particle Word, or Verb Word,
Not Prominent

Where the Verb + Particle Word is not prominent, its component Syllables are level in pitch, and low, though the pitch of the Particle Word (de'i) may be high (Intonation-Two Clauses). In this prosodic type of Clause there are no pitch criteria of Tones One and Two (for other criteria, see 212122); and the relevant pitch patterns are as follows:

Intonation One



(A monosyllabic example, — — is also possible, but only in the case of a Tone-Two Word, the Verb being exemplified by byas; see also 212121112, i).

Examples are as follows:

Tone One

— — — — — \ — — — — —

tha thirī: khsā: tsyndry: tjhe thu:ne,

da da-ring kha-sa[ng] brtson-'grus byed thub-na,

'Now, if, at the present time, you can make an effort.'

tfagba: di drigbe n^ndy:,

lcags-par 'di bsgrigs-pa gnang-dus,

'When you set the type press up,

ne:dŷ: di to: ma nanzã:,

gna[d]-don 'di rtogs ma gnang-tsang,

'Since they do not understand the purpose of it,'

Tone Two

tha ã:zu phøe: tʃhɛ:nə,

da nga-'tsho bod-pas byas-na,

'Now if we turn it into Tibetan,

ma: da: das mɛ:li ma: tʃamdʒən tʃhe, jundy:,

[mar sda] sda-se mal-le'i mar 'chams-'chams byas, yong-dus,

'When I came down to Da --- Das Mile, having taken a
walk down there,'

thajä: tʃik tɔndra ni:sumle khAdze: ʃɔbne, ʃɔm.¹

da-yang [gcig] stong-phrag gnyis-gsum[-la] ga-tshad
rgyag-na'i, rgyab.²

'And now, (say you) print two or three thousand,
however many you do print.'

Three Pitch Marks

Tone One, ---

n tha:dʒi: bAbu la:gi dindre:ʃ tsu:be naɲberes.

[a-ni] mthar-phyin sba-bu lags-kyi[s] 'di-'dras btsugs[-pa]
gnang-nga-red zer-gvis.

'Then, "this is the way Tharchin Babu established it",
(they say).'

¹The nasality that is here co-articulated with the final labial closure of rgyab is attributable to Junction, with the Syllable initial of de in the following Sentence.

²The two orthographic forms rgyag and rgyab both refer to the same lexical item, and reflect a difference in pronunciation, the former without, and the latter with, Syllable-final labiality. Both labial and non-labial pronunciations were heard from R., the former being the more common (the reverse seemed to be true of other LT-speakers); but the spelling rgyag is in any case not appropriate to the phonetic form (ʃɔ**b**) recorded here.

For further Intonation-One examples see App. III,
212121122.

Intonation Two

Tone One

and

Tone Two

e.g.

Tone One

*adʒa la: kundʲ: l tʃa: 90, samdʒü de,

a-lcags lags sku-mdun-la bcar-dgos, bsam-byung 'da'i.

'I must go and call on Auntie, I thought, but - - -.'

Tone Two

dine ma:ko palisigi tshabi cypu du: de,

[de-nas] ma-khud pa-rad-se'i phyag-dpe skyon-rgyu 'dug
de'i,

'Then there was Marco Pallis's book to be printed, but
- - -.'


khəde khuɣidu: de, go-ta go-gi-'dug te,

'I did indeed see him, but - - -, ' (Bell).

Only one Non-Sentence-final-Clause Particle has been recorded in Intonation-Two Clauses: de'i/te/ta'i/'das (Particle Word.)

There is, however, another Particle besides de'i that has been recorded in Intonation-Two Clauses: the Alternative-Interrogative Particle (na) in the first alternative; e.g.

Tone Two


kango: ji:na:, lo: ji:ne.

rkang-skor vin-na'i, glog vin-na.¹

'Is it foot-operated, or is it electric?'

In this example rkang-skor is contrasted with glog.

It is clear from the above examples that both Verb and Particle Syllables do not have fixed relative pitches; on the contrary, a given Syllable of either grammatical type may have more than one kind of pitch behaviour in accordance with differences in the pitch behaviour of other Syllables in the same Word, Clause, and Sentence. Thus, the Verb Syllables (i) anang and (ii) byas have been observed to have three different types of pitch behaviour:

¹ -na'i is a phonetic spelling intended to symbolize the long duration of vowel (:) and the openness of vowel (a) that characterize the Particle Syllable na in the first alternative.

- i. high level: nā:nē (212121111, i),
 " falling: naŋ,zā: (2121211211),
 low level: naŋzā: (212121122);
- ii. " falling: tʃhē:ṇ (212121112),
 " rising-falling: tʃhē:ṣī (2121211212),
 " level: tʃhē:nē (212121122).

The Particle Syllable tsang, similarly, has three types of pitch behaviour associated with it:

- high level: thu:dzā: (212121111),
 low rising: naŋ,zā: (2121211211),
 " level: naŋzā: (212121122).

In all cases an attempt has been made to relate differences in the pitch behaviour of the Syllable or Syllables of a given lexical item to differences in the pitch behaviour of other Syllables through stating Tone systems for the Word and Intonation systems for the Clause.

The examples in section 212121 also serve to re-inforce a previous statement (0522) that members of the Particle category are not restricted to Words of a particular Tone, and cannot therefore be given a Tonal classification: in the above examples the Particles na, dus, nas, etc. correspond to constituent

Syllables of Tone-**One** and Tone-**Two** Words alike. With Verb Syllables, on the other hand, there is a restriction: the Verb Syllables mang, chung, and shes, for example, are confined to Tone-**One** Words, and byas, byung, bsad, and yin to Tone-**Two** Words. All Verbs may similarly be classified as Tone-**One**-Word or Tone-**Two**-Word Verbs.

2121212. Sentence-final Clause

The Sentence-final Clause, like the Non-Sentence-final, contains Vb. + Part. Words, Vb. Words, and Part. Words; and here too, in order to secure certain economies in statement, the three types of Word are dealt with not separately and in turn but as far as possible simultaneously. The types dealt with in this section, then, are: (i), the Vb. + Part. Word; (ii), the Vb. Word, provided that it is associated within the Verbal Phrase with an immediately following Sentence-final-Particle Word; (iii), the Particle Word, provided that it is classifiable as Sentence-final. The remaining Vb. Words, those which are immediately followed by either another Vb. Word, a Vb. + Part. Word, or a Negative-Particle Word, are dealt with at 2121213; the remaining Part. Words, those not classifiable as Sentence-final, are dealt with at 2121214 (the Negative Particle ma only).

The Sentence-final sub-category of Verbal Particle comprises thirty-two members. These thirty-two Particles are on a different footing from the members of the Non-Sentence-final sub-category (2121211); for they are not confined to the Sentence-final Clause, and some of them have in fact already been exemplified from the Non-Sentence-final Clause. They are: vin, vod,

min/man, med/mad, pa/ba/ga/nga/ra (Past), kvi/gvi/si (kyis/gvis/gis when Clause-final), ro/dgos, yong, song, byung, shag/zhag, ma/mi, red, 'dug, myong/nyung, 'dra, 'gro/gro, pa/ga (Corroborative Interrogative), ga/ka (Future Special Interrogative), pa/ga/nga (Special Interrogative), pa/ga/na (Alternative Interrogative), pa/ga/nga (Exclamatory), shig, do, a (Imperative), a (Dubitative), pas/gas/ngas/ras, no, na (Special Interrogative), na (Exclamatory), dang/da (Imperative), dang (General Interrogative).¹

Some of these Particles are orthographically and phonetically similar, and are therefore briefly distinguished in the following remarks. The Past sub-category of Particle (pa/ba/ga/nga/ra, byung, song, etc.) is so named from the fact that it is confined to Past-Tense Clauses, and may therefore colligate within the Clause with a sub-category of Noun (also termed Past-Tense, or Past), e.g. zla-rnying, 'last year',

¹ The terms Special Interrogative, for Interrogative Clauses that contain Interrogative Nouns, and General Interrogative, for Interrogative Clauses that prehend some such reply as la red, 'yes', la ma-red, 'no', is based on the terms special question and general question used in Everyday Sentences in Spoken English (H.E. Palmer and F.G. Blandford, Cambridge, 1935).

khas-sa, 'yesterday', mdang-drong, 'last night; the Past-Particle Syllable pa/ba/ga/nga/ra is, in addition, invariably characterized by a low and level pitch, and is never final in the Word; e.g. de'i sngas-nas [cig] dbyin-[skad] slab-nyan mang-po byung-nga-red (tshunbere), 'Before that there were many people learning English' (Past-Tense Noun: sngas, 'before'). The Exclamatory Particle ga/nga/pa is invariably final in the Clause, and is characterized by a fall in pitch; e.g. spyi-ni de skom-sa'i 'dug-ga (duga), 'what a shortage of sugar there is too'. The Special-Interrogative Particle (ga/ka, pa/ga/nga, na) is confined to a sub-category of Interrogative Sentence (Special) in which it is colligated with a sub-category of Noun termed Interrogative Noun, e.g. ga-'dras, 'what kind of', su, 'who', ga-pa(r), 'where'; of its three members ga/ka differs from the other two, and therefore forms a further one-member sub-category, Future; which colligates within the Clause with a sub-category of Noun termed Future-Tense-Clause, or Future, e.g. sang-nyin, 'tomorrow', phyi-lo, 'next year', sang-zhog, 'tomorrow morning'; i. (Future) thugs ga-bar sku-bzhugs gnang-ga (nanga), 'where shall you stay'; ii. (Non-future) thugs ga-par sku-bzhugs gnang-nga (naga), 'where did you stay'; 'di ga-re

yin-na (**jī:ne**), 'what is this; I wonder'. The Alternative-Interrogative Particle (pa/ga/na) and the Corroborative-Interrogative (pa/ga), on the other hand, may not be colligated within the Clause with the Interrogative sub-category of Noun; nor may the Exclamatory Particle na; e.g. i. (Alternative) lha-sar phebs-pa (**phe:ba:**), rgyal-rtser phebs-pa, (**phe:ba:**), 'Did you come to Lhasa, or did you come to Gyantse'; lcags-par - - - yin-na (**jī:na:**), yang rdo-par yin-na (**jī:ne**), 'is it - - - a type press, or is it a litho press'; ii. (Corroborative) (-pa-, **be** is an example of the Past Particle pa/ba/ga/nga/ra), nga-rang-'tsho - - - mi-lus - - - len-pa-red-pa (**lɛmberiba:**), 'we - - - assumed - - - human shape, did we not'; iii. (Exclamatory) 'di zhe-drag yag-po 'dug-na (**du:ne**), 'mm, this is very good'. An Alternative-Interrogative Sentence usually contains two Clauses, in the first of which, and usually in the second as well, the Alternative-Interrogative Particle is exemplified. These two Clauses are referred to as the first and second alternatives. The first alternative has already been dealt with in section 2121211, the Non-Sentence-final Clause.

The Imperative Particle a is either Clause-final or

Clause-final except for ze/se, e.g. bzhugs-gdan 'jag-a (dʒa:ʔa:), 'do take a seat'; the Exclamatory Particle a is Clause-final, and invariably preceded by the Particle na, e.g. 'dir yod-na-a (jə:nəʔa:), 'I wish he were here'; the Dubitative Particle a is never either Clause-final or preceded by na, e.g. yag-po shes-kyi-a-yod (ʃingiʔajə), 'I do not think I do know it well'; 'brug-pa a-yin (ʔʌji:), 'I doubt whether he is Bhutanese'.

The Sentence-final Particles that, like de'i in the Non-Sentence-final Clause, must, on Junctional grounds, (11132), be treated as corresponding to Words are: dang (Interrogative), and, but not consistently, dang/da (Imperative), gro/'gro, and do (211122-3, 211125-6). As Particle Words, differences in their pitch behaviour are ascribed to differences in Clause Intonation not to differences in Word Tone; but, as has been explained above, it is nevertheless convenient to illustrate these Intonational differences here, while stating the pitch exponents of Tones One and Two for the (Vb. + Part., or Vb.) Word preceding the Particle Word; (i), Vb. + Part. Word: dgos-kyi-mad 'gro, bsgrigs-kyi-yod-pa-red dang, (ii), Vb. Word: med 'gro, red dang, ltos dang.

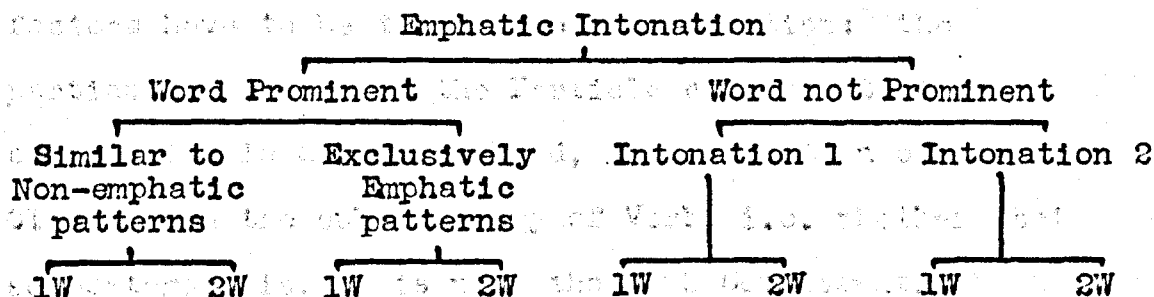
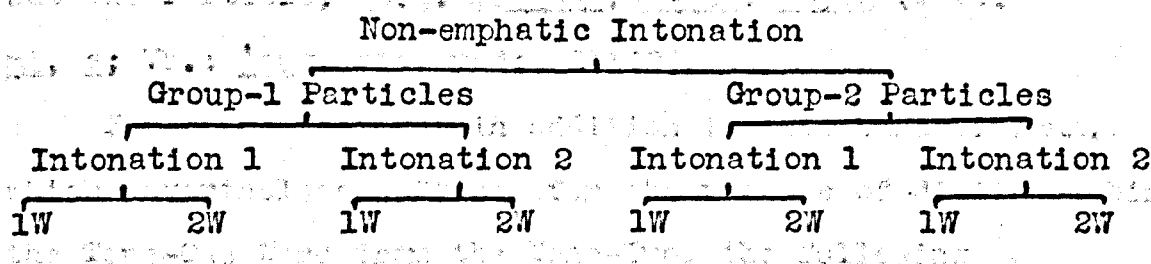
The Particles referred to in the preceding paragraph, dang, dang/da, do, and gro/'gro, are all confined to the Verbal Phrase, and cannot be exemplified except in colligation, either within the Word or within the Phrase, with a Verb. There are in addition the Particles referred to in 211127, which may be exemplified in Verbless Sentences in the circumstances stated there, i.e. in reply to another speaker's General-Interrogative Sentence, and in an echo Sentence, in which the Words of another speaker are in part echoed, in agreement.

Particle Words of this latter type, e.g. ma-myong, 'never', mi-'dug, 'They would not', yod-na, 'mm, he does', are, like those of the preceding paragraph, also treated as non-tonal; and it is convenient to deal with their pitch behaviour also under the heading of the appropriate terms of Intonation systems together with those of the (tonal) Verb and Verb + Particle Words.

The distinction between Non-Emphatic-Clause and Emphatic-Clause Intonation that was adopted for the Non-Sentence-final Clause (2121211) is applicable here too; and the criteria of 1W and 2W are stated within the framework of a corresponding two-term Intonation system: Non-emphatic (21212121), Emphatic (21212122), though only those exponents of these two terms which are

relevant to the Vb. + Part. Word, etc., are considered initial and final; the initial and final are dealt with here.

The order in which the pitch behaviour of the three types of Word considered in this section (p. 190) is dealt with is shown in the following figure:



All three intonations have to be taken into consideration:
21212121. Non-emphatic

In the Non-emphatic-Intonation Clause the pitch exponents of the Tone-One and the Tone-Two terms are the same, the intonation systems are also the same as for the Non-emphatic Non-Sentence-final Clause (21212111):

1W: high pitch characterizing the Verb Syllable;

2W: low " " " " " "

Since the Verb is in most cases the initial category in the grammatical structure of the Word (21142), these

exponents come near to being equivalent to: 1W, Word-initial high pitch; 2W, Word-initial low pitch; but this latter wording would fail to cover some Vb. + Part. Words in which the initial category in the grammatical structure of the Word is, exceptionally, not the Verb but the Particle; e.g. mi-'dug, a-vin, a-yod (Part.: mi, a; Vb.: 'dug, vin, yod; (21142)).

For pitch features in addition to this bare minimum, which nevertheless suffices for the purpose of distinguishing the Tone-One Word from the Tone-Two, the following factors have to be taken into consideration: the particular members of the Particle category that are exemplified in any given Word, the Intonation of the Clause, and the sub-category of Verb, i.e. whether that sub-category is, or is not, the Verb Complement.

All three factors have to be taken into consideration: but it is more economical in this instance to depart from the order of statement adopted for the non-Sentence-final Clause, whereby Intonation systems were given priority in statement over the Groups of Particles, the latter being considered within the framework provided by the former, and to begin by grouping Words on the basis of the Particles that they include. The key to this grouping of Words by their Particles is, the first

Particle Constituent of the Word; and this Particle corresponds usually to the second Syllable of the Word, but, exceptionally, to the first, as in a-yin, a-yod, mi-'dug (21142). Once this first Particle is known, the range of possible pitch patterns for the whole Word is very much reduced. Two groups of Particles need to be distinguished: Group 1 (212121211), Group 2 (212121213).

212121211. Group-1 Particles

Group 1 comprises: byung, song, shag/zhar, yod (but see the following paragraph), 'dug, pa/ba/ga/nga/ra, agos/go, vong, pa/ga/nga (Special-Interrogative) (but with exceptions where the Verb belongs to the Verb-Complement sub-category), ga/ka (Future Special-Interrogative), pas/gas/ngas/ras (except where the Verb belongs to the Verb-Complement sub-category), ma/mi, na (Special Interrogative), na (Exclamatory, where not followed by a), pa/ga/na (Alternative-Interrogative, gro/'gro, shir, do, dang/da (Imperative); to which may be added gi(s)/gyi(s)/kvi(s) provided either that it is final in the Sentence (in which case the -s spelling is usual) or that it is followed by pas, thus making a total of twenty.

When the first Particle Constituent of the Word is the Particle yod and, at the same time, the immediately

following Particles are pa and red, patterns appropriate both to Group-1-Particle Words (\ - -, \ - -) and to Group-2-Particle Words (- \ -, - \ -) have been recorded. This variation in pitch pattern seems not to be accountable for in terms of Emphatic and Non-Emphatic Intonation; and examples have therefore been included under both heads: Group-1 Particle (2121212111, Three Pitch Marks); Group-2 Particle (2121212121, 3).

Where the first Particle to follow the Verb is one of the twenty members of Group-1, the high (1W), or low (2W), pitch of the Verb Syllable is also falling. This description of the Verb Syllable may stand irrespective of the intonation of the Clause; but, in order to account for the pitch behaviour of the Particle Syllables in the Word, the following examples are grouped under one or other of the two terms of an Intonation system, Intonation One (2121212111), Intonation Two (2121212112), thus making it possible, at the same time, to relate certain Sentence-final Particles to the appropriate term of the Intonation system. The Particle no, for example, is restricted to Intonation-Two Clauses, and may therefore be termed an Intonation-Two-Clause, or Intonation-Two, Particle.

2121212111. Intonation One

It may be said in passing that the criterion of Intonation One, as against Intonation Two, is a Clause-final non-rising pitch: either falling (\, \) or low and level (-). The pitch patterns of Tone-One and Tone-Two Words are, then, as follows:

1W: I, (--)
a.i. ii. b.
2W: -, - -: (--)

The pitch patterns given at (a,1) are those of Verb Words and of Particle Words; those given at (b), Word-initial fall and Word-final low and level, apply not only to disyllabic but also tri-, quadri-, and quintisyllabic Words. This latter possibility has been indicated by bracketing the last two pitch marks.¹ The final pitch mark (-) of the section-b patterns may refer to the final Particle Syllable of a Vb. + Part. Word, or to a Particle Word. The Particle Words are

1The number of pitch marks in the examples does not always correspond to the number of Syllables recognized for the corresponding Word (or Words; for an example may include a Particle Word) in the phonological analysis. Thus jo:re, yog-red/yod-red/yod-na-red, appears in the section dealing with the two-pitch-mark pattern ↗, but is nevertheless treated as a trisyllabic Word in the Phonological analysis.

dealt with as follows: Two Pitch Marks, deng (Imperative), gro/'gro; Three Pitch Marks, gro/'gro; Four Pitch Marks, gro/'gro, deng (Interrogative).

In order that the examples may not be so numerous as to obscure the type of statement adopted here for Tone and Intonation, a number of examples, both from this section and from other sections of 2121212, have been relegated to an appendix (Appendix III, p. 682). The fact that they appear in an appendix and not in the body of the thesis does not, however, mean that the relegated examples are of less account than the others: they are, on the contrary, on a par with them; for the pitch features of Syllables are given equal treatment in the thesis with their other phonetic features. It is therefore necessary in general to give an account of the pitch behaviour of Noun Syllables, Adjective Syllables, etc., and in this particular section to give examples of all possible variations in the pitch behaviour of Syllables identified with every member of the Verb category, and of the Verbal sub-category of Particle.

Similarly, in the interests of clarity, remarks qualifying, and limiting the application of, certain general statements have been left until the end of the

section to which they refer (see the sections headed 'Notes'; pp. 206-14).

Examples are as follows:

a. Final Fall in Pitch

i. One Pitch Mark

— — — \ — — — \ — — — — — \
 tha one kjesa:gi dē:me: kə:ne to:dz fik kamə: nā:.
 da ['o-na] ge-sar-gyi mdan-ma'i skor-nas rtog-rtse gcig
 bka'-mol gnang. (Vb. Word).

'Then please say a little, now, on the subject of Kesar's
 mDan-ma.'

Tone Two

— — — — —
 səsə: lunbe: tʃhube khə:.
 so-so'i lung-pa'i phyu-pa gyon. (Vb. Word).

'Wear one's national dress!'

— — — — —
 khorā: phə:be re:, drugbe re:.
 kho-rang bod-pa red, 'brug-pa red. (Alternative-Interrogative
 Sentence).

'Is he Tibetan, or is he Bhutanese?'

This last example refers only to the second of the two
 alternatives, see Non-Sentence-final Clause (pp. 171-2).

A All the examples given in section (a) so far have been of Verb Words; the second of the following pair of utterances, (2), provides an example of a Particle Word (yod);

1. bu bzhugs-gdan 'jags-yod-pas (Vb.: 'jags; Part.: yod, pas). 'Are you at home, Rinzin?'

2. - '
la jə:. la yod. 'Yes, I am'.

The pitch behaviour of this Particle Word yod is identical with that of the Verb Word yod in the same intonational type of Clause: low fall; and so is that of such other Particle Words as red, vin, byung, med.

For further examples, both of Verb and of Particle Words, see Appendix III, 2121212111, a.

ii. Two Pitch Marks

The sole Vb. + Part.-Word example in this section is the 2W mi-yong, in which the Verb belongs to the Verb-Complement sub-category, the Particle category being exemplified by mi (Negative). The fall in pitch characterizes the final (and Verb) Syllable, as in section (i), but this Syllable is not the only Syllable of the Word; e.g.

la mang-po zhe-po mi-yong.
la mang-po zhe-po mi-yong.

'No, there would not be very many.'

The same pattern has also been noted for the disyllabic Particle Word ma-myong, which appears in the second utterance, at (2), below:

1. khyod rdo-rje gling-la 'gro-myong-ngas (Vb.: 'gro;
 Part.: myong, ngas).

'Have you been to Darjeeling?'

2. ma-myong. 'No. (lit. not been)' (Bell).

b. Final Low and Level Pitch

Two Pitch Marks

Tone One

lakba:du sã:skrite to:dz lãbzũ: nã:fa.

lhag-par-du san-se-khe-te-ze tog-rtsi slob-sbyongs
gnang-shag.

'They have usually studied Sanskrit a little.'

Tone Two

fiñdry: rãbu dindre:s ma: driyfa.

shing-khrol ra-po ['di-'dras-se] mar bsgrigs-bzhag.

'The sort-of wooden tray has been put down ready like this.'

Disyllabic Particle Words have also been noted, with the same pitch pattern as that of the Tone-Two Vb. + Part. Word; e.g. the Particle Word yod-na, at (iii) below, in which R. in fact echoes not an other speaker's (T.'s) utterance but his own previous utterance at (i):

R.: i. [bha-tha-na] bzhugs-[kyi]-yod-na (Vb.: bzhugs; Part.: kyi, yod, na).

'Does he stay at Bhutan House?'

T.: ii. a-tha ma'le'i --- mal-le brgyad-pa-la sa-'du tshang ko-ti.

'"Sandu Tshang" Koti, at Āth Mail --- Eighth Mile.'

R.:iii. ale: 5: jo:ne. [a-las] 'ong yod-na.

'Oh, yes, mm, so he does!'

For notes on the section-b Two-Pitch-Mark examples, see pp. 206-12 below.

Three Pitch Marks.

Tone One

di ne: thande jibus th3:manfi.

de ngas da-lta zhe-po-se mthong-ma-nyung.

'Up to now I have hardly ever seen one.'

Tone Two

dʌnĩ: ji:gi tʃik dʒo:mindu.

zla-rnying yi-ge cig 'byor-mi-'dug.

'He has not received a letter during last year.'

For notes on these Three-Pitch-Mark patterns see
pp. 212-14.

Four Pitch Marks

Tone One

dine: dini tʃagba: di khady: təmbəjɪ:nə.

de-nas [de]-ni lcags-par de ga-dus thon-pa-yin-na.

'Next, then, when did this type press come into operation?'

Tone Two

di sy: sɔ:bɛjɪ:nə. 'di sus bzos-pa-yin-na.

'Who was it made this?'

For additional section-b examples see Appendix III,
2121212111, b.

Notes.

The following remarks are notes on, and expansions of, the material presented above in section (b). They are grouped under the two headings Two Pitch Marks, Three Pitch Marks.

Two Pitch Marks

No examples could be given of the Past Particle pa/ba/ga/nga/ra; for it is not found in disyllabic Words. The Interrogative Particle dang (Particle Word) is found in disyllabic Verbal Phrases only where the Verb is a member of the Verb-Complement sub-category, and is dealt with at 2121212121, 5a, ii.

The Particle pa/ga of the Alternative sub-category of Interrogative Particle appears at Appendix III, 2121212111, b, in 'phe:-ba: (phebs-pa); the pitch pattern of this example, with its Word-initial fall, applies only to the second alternative, the first being non-Sentence-final (212121111, a, ii), and having no fall; e.g.

 - - - - - \ -

cherā: lē:sā: phe:ba:, ǰanʒe: phe:ba:.

khyed-rang lhas-sar phebs-pa, rgyal-rtser phebs-pa.

'Did you come to Lhasa, or did you come to Gyantse?'

In the case of the Alternative-Interrogative Particle na too a fall in pitch characterizes the Verb Syllable in the second of the alternatives; e.g.

khərā: drugbe jī:na, pho:be jī:ne.¹

kho-rang 'brug-pa yin-na, yang bod-pa yin-na.

'Is he Bhutanese, or is he Tibetan?'

Attention has already been drawn (p. 198) to the fact that the pitch behaviour of examples in which the Verb is a member of the Verb-Complement sub-category may not be consistent with Group-1-Particle patterns stated above at 2121212111,b, though these patterns do, however, apply where the Verb is a member of the Verb-Complement sub-category provided that the Particle category is exemplified by gro/'gro (App. III, 2121212111,b) mε: tro, mad 'gro; and cf. also mεndro, min-'gro; jindro, vin-'gro), or either of the Particles na (i, Exclamatory; e.g. re:ne, red-na, du:ne, 'dug-na; ii, Special; e.g. jø:ne, yod-na, jī:ne, vin-na); or by the Perfect Particle shag, in that a fall in pitch characterizes the Verb Syllable; e.g.

¹Both pho:be and phø:be were heard from R. as pronunciations of bod-pa, 'Tibetan'. R. preferred the latter, but quite often used the former. ()

di: kjeŋgi ne:bu tʃhũ:fa.

de'i rkyen-gyi mnyes-po byung-shag.

'- - - and for that reason it has been a pleasure.'

(For shag in the Emphatic-Intonation Clause, see

2121212212, i: yod-shag, vin-shag); but in

Vb. + Part. Words in which the Particle is exemplified

by pa/ga/nga (Special-Interrogative sub-category),

the fall characterizes the Verb Syllable in the case

of the Main and Auxiliary sub-categories of Verb, and

the Verb-Complement too when represented by vin and

yod, but the Particle Syllable when the Verb Complement

is represented 'dug; e.g.

Main Verb

jā: khandre: nana.

yang ga-'dras gnang-nga.

'- - - or how has he arranged things?'

pha:le: khadzø: sɛ:ba:.

bag-leb ga-tshod bzos-pa.

'How many loaves have you made?' (G. and R.).

Verb Complement (yod)

— — — — — \ —
 tʃala tshung⁹ju khare jə:ba:.

ca-lag tshong-rgyu ga-re yod-pa.

'What goods have you for sale?' (G. and R., altered).

Verb Complement (yin)

\ \ — — \ —
 kʃə: sy: lugzi jimba:.

khyod su'i lug-rdzi yin-pa.

'Whose shepherd are you?' (G. and R.).

For an example of the Verb Complement 'dug, see
 2121212121, 5a, ii.

All eight members of the Verb-Complement sub-category are, however, consistent with each other, though inconsistent with members of any other sub-category of Verb, in Words in which the Particle category is exemplified by pas/gas/ngas/ras (General Interrogative): where the Verb is a member of the Verb-Complement sub-category, the fall in pitch characterizes the Particle Syllable (and cf. also the Group-2-Particle Word, 2121212121, 2b); where it is not, it is the Verb Syllable with which the fall is associated; e.g.

Main Verb

— — \ —
le:sa: phe:be:.

lhas-sar phebs-pas.

'Did you come to Lhasa?'

— — \ —
se:dze se:be:.

gsol-ja bzos-pas.

'Did you make tea for him?'

but cf. the Verb Complement:

— — \ —
nabe jimbe:.

lnga-pa yin-pas.

'The fifth, is it?'¹

— — \ —
di ne: khala ri:be:.

'di nga'i kha-lag red-pas.

'Is this my meal?'

¹ vin-pas with a pitch pattern — — can only be a Nominalized-Verb Word, 'through our being': Vb. (vin), Nomzg. Part. (pa), Nom.Part. (-s); e.g. naranz tji:go: ma jim-be:, nga-rang-'tsho cig-por ma vin-pas, 'through our not being alone'.

yong-ngas, 'are there', in which yong exemplifies the Verb-Complement, is thus distinguished by pitch behaviour from yong-ngas, 'did you come', in which it exemplifies the Main-Verb sub-category; cf.

Main Verb

kā:n tã:le jõe:.

rkang thang-la yong-ngas.

'Did you come on foot?' (G. and R.).

Verb Complement

phø:le fĩ: bæ:bu jõe:.

bod-la shing 'bel-po yong-ngas.

'Is wood plentiful in Tibet?' (Bell).

Three Pitch Marks

A very few examples of the section-b pitch pattern (\ - -), with Word-initial fall, have been recorded for Vb. + Part. Words in which the first Particle is gi/gyi/kyi and the following Particle either red, 'dug, yin, yod, min, or med; e.g.

sã:jo: t[ʌ:qeif:.

sang-zhog bear-gyi-yin.

'I will come and see you tomorrow.'

lo khadzø: ts the:gejone.

lo ga-tshod rtse thad-kyi-yod-na.

'About how many years is it since - - -.'

khari sungyduqa.

ga-re gsung-gi-'dug-ga.

'What does he say?'

By far the more usual patterns for such Words as these are those given at 2121212121, 2a, i: 1W, - - \; 2W, - - \.

In the Negative and Interrogative forms exemplified at Appendix III, 2121212111, b, Three Pitch Marks, Four Pitch Marks, no fall in pitch characterizes the Negative-Particle Syllable (ma/mi) or the Interrogative-Particle Syllable pas/gas/ngas; with them may be compared Words in which the first Particle is a member of Group 2, in which it is these Syllables that are characterized by a fall in pitch (Appendix III, 2121212121. Negative: 2a, ii; Interrogative: 2b, i -ii).

In the case of the Three-Pitch-Mark examples, unlike the Two-Pitch-Mark, the pitch behaviour of Words in which the Verb is a member of the Verb Complement sub-category does not differ from that of Words in which

it is a member of either the Main or the Auxiliary sub-category; hence byung-pa-red, vin-pa-red, and yod-pa-red may be classified as Tone-Two Words on exactly the same grounds as, e.g., zer-ra-red, bzos-pa-red, bgad-pa-red; and byung, vin and yod may therefore be classified, with zer, bzos, and bgad, as 2W Verbs.

2121212112. Intonation Two

The criterion of Intonation Two, as against Intonation One, is a Clause-final rise in pitch. This rise may be associated with the final Particle Syllable alone (i, —), in which case the final Particle will be one of the following: no, dang (General-Interrogative), pa/ga (Corroborative-Interrogative); or it may characterize not only the final Syllable but the last two Syllables, with the result that the last Syllable but one is observed as low in pitch and the final Syllable as high and level (ii, — —), in which case the final Particle will be na (Exclamatory). The first Particle of the Word is either the Past Particle pa/ba/ra/nga/ra or the Perfective Particle yod. The following are the Intonation-Two pitch patterns for the last Vb. + Part. Word of the Clause and for the Part. Word (dang) too, if represented:

1W: \ - - (-) / , ii. \ - - - -
 2W: i. \ - - (- -) / , \ - - - -

The pitch pattern given at (i), i.e. Word-initial fall, Word-final rise, with a low and level pitch in between, applies to Words with a differing number of Syllables: quadri- and quinti-syllabic Words in the case of Tone One, and tri-, quadri-, and quinti-syllabic Words in the case of Tone Two. These differences in the number of Syllables comprising the Word are indicated by brackets, though, as explained above (p. 200, n. 1), the number of phonetic pitch marks does not necessarily correspond to the number of phonological Syllables.

No corresponding 1W pattern is given for the section-ii pattern above; for none appears in the material, though such an example is thought to be possible.

i. Final Rise in Pitch

Three Pitch Marks

The sole examples contain the 2W Verbs vin and yod; and there is thus no 1W example for comparison:

2W

dindre: jimbena.

'di-'dras yin-pa-no.

'Is that how it is?'

Four Pitch Marks

1W

g^mdzfi: tshεjəbənə.

sgam-chung phye-yod-pa-no.

'Have you opened the box?'

2W

tharE: dzigdE: kham de mily: røbu tšik lemberiba:o

da-[ran] 'jig-rten khams 'das mi-lus ra-po cig len-pa-
red-pa.

'We have at present, have we not, sort-of taken on human shape in this External World?'

Five Pitch Marks

1W

kamŏ: nanəjimbenə.

bka'-mol gnang-nga-yin-pa-no.

'Did he talk to you?'

2W

de: fu:bejimbeno.

'dir bzhugs-pa-yin-pa-no.

'Did he stay here?'

For further section-1 examples see Appendix III,
2121212112, i.

ii. Final High and Level Pitch

2W

jagu fira jonandugane.

yag-go zhe-drag yong-nga-'dug-ga-na.

'It would have turned out very well, would it not, mm?'

212121212. Group-2 Particles

The Group-2 Particles comprise the following: a (Imperative), yod (but only when immediately followed by pa-red), gi/gyi/kyi (except when final in the Clause, or immediately followed by pas; Appendix III, 2121212111, b, Two Pitch Marks, Three Pitch Marks), a (Dubitative), na (Exclamatory, but only where followed by a), pa/ga/nga (Exclamatory); and, but only when the Verb belongs to the Verb-Complement subcategory, the following: ma/mi (except mi-yong, 2121212111, a, ii), pa/ga/nga (Special-Interrogative, provided that the Verb is exemplified by

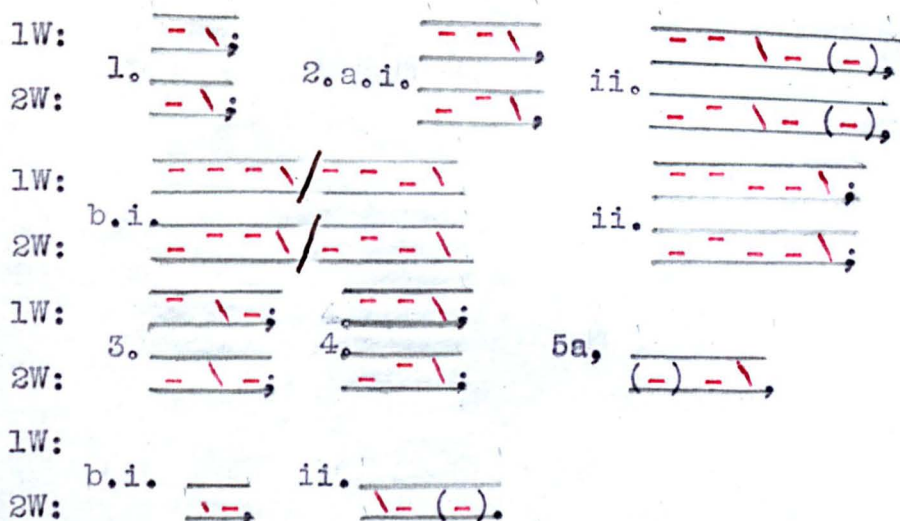
'dug), dang (General-Interrogative), pa/ra (Corroborative-Interrogative), a total of ten.

yod when followed immediately by pa-red appears in both the Group-1 and the Group-2 lists of Particles; for the pitch patterns appropriate to Words of either type seem to be in free variation; cf. also Appendix III, 2121212111, b, Three Pitch Marks, Four Pitch Marks.

Where the first Particle of the Word is one of the Group-2 list, whether that Particle precedes the Verb or not, the high (1W), or the low (2W), pitch of the Verb Syllable is also level, except where a rise in pitch is specified as an alternative in the case of certain Tone-two Words. In this section, too, in order to account for the pitch behaviour of all Particle Syllables, the examples are grouped under one or other of the two terms of an Intonation system, as Intonation One (2121212121), or Intonation Two (2121212122).

2121212121. Intonation One

The criterion of Intonation One, as against Intonation Two, is a Clause-final non-rising pitch, either low and level (—) or falling (\) (cf. also 2121212111), the 1W and 2W pitch patterns being as follows (the final pitch mark may also refer to a Particle Word: gro/'gro, dang):



Examples are as follows:

1. Particle a

Only one member of the Particle category is included in Words of these pitch patterns: a (Imperative); the Particle Syllable is characterized by a fall in pitch; e.g.

1W

khʌle: the:ʔa:.

ga-le thas-a.

'Sir! Gently go.' (Bell).

2W

one ɬu:ʔa:.

'o-na rɛyugs-a.

'Off you go, then.'

In the case of the 2W example a rise in pitch has also been recorded as characterizing the Verb Syllable in a Slow-Tempo utterance; e.g. ,gu:'ʔa:, sgug-a, 'Hang on a minute'.

2. Particle gi/gyi/kyi

All the section-2 examples have in common the fact that the first Particle in the Word (the second Syllable) is gi/gyi/kyi. In these patterns this Particle Syllable is always characterized by a high pitch (but cf. Appendix III, 2121212111, b, Two Pitch Marks, Three Pitch Marks, in which gi/gyi/kyi is either final in the Clause or followed by pas), and the following Syllable (the third) either (a), by a fall in pitch, or (b), by a level pitch.

a. Fall in Pitch

Section (a) is further divided into sections (i) and (ii).

i.

In section (i) the third Syllable is also Clause-final, and is one of the six Particle Syllables yod, yin, 'dug, red, min/man, mad/med; e.g.

1W

khady: tshijju: nangidu:

ga-dus chibs-bsgyur gnang-gi-'dug.

'When is he going?'

2W

dr̥iɣidu:

bsgrigs-kyi-'dug.

'You fix it up.'

For further section-i examples see Appendix III,
2121212121, 2a, i.

ii.

In (ii) the third Syllable is not final, and is followed by one, two, or three Syllables characterized by a low and level pitch. These final low and level Syllables are indicated by two pitch marks, the possible absence of the latter being shown by brackets.

The patterns given here apply to Words in which the final Particle is na (Special Interrogative), pa (Special Interrogative), or gro/'gro (Dubitative); to Words in which the final three Particles are yod, pa, and red (often spelt phonetically as yog-red/yod-red); and to Words in which the second Particle Constituent

of the Word is ma/mi (Negative Particle) or a (Dubitative); e.g.

Four Pitch Marks

1W

— — — — — \ —
 — — — — — \ —
thu tʃhale: khar nangeje:ne.

thugs phyag-las [ga-re] gnang-gi-yod-na.

'What work do you do?'

2W

— — — — — \ — — — — \ —
 — — — — — \ — — — — \ —
tha naranze: mi:ge: namdra:le khandre:s siqje:ne.

da nga-rang-'tsho'i [ma-gas] nams-prangs[-la]

ga-'dras[-se] zer-gyi-yod-na.

'Now what do we call the sum total of those things of ours down there?'

Five Pitch Marks

These patterns are appropriate to: Words in which the final Particle is 'dra; Words in which it is pa (Corroborative-Interrogative) in Negative Clauses (for the usual pattern see Intonation Two, 2121212122, b, iii); Words that include the Particles yod, pa, red in that order; and Words that include the Exclamatory Particle na; e.g.

1W

ningũ: pha: nam jagu tengijimbədra.

nyin-dgung bar gnam yag-po bstan-gyi-yin-pa-'dra.

'It will probably be fine till midday.' (Bell).

2W

tha khonzo: khã: menze:g phengi tshimbu jungijimbədra.

[da] kho-'tsho'i gang min-mdzad-kyi phan[-skyed]

chen-po yong-gi-yin-pa-'dra.

'Now, it will probably turn out to be of tremendous advantage to them.'

For further examples of section-ii pitch patterns see Appendix III, 2121212121, 2a, ii.

b. Level Pitch

In section (b) the penultimate Syllable, one of the six Particle Syllables red, vin, yod, 'dug, man/min, med/mad, is characterized by a level pitch, either high or low; while the final Particle Syllable, which is either pas/gas (General-Interrogative) or pa/ga (Exclamatory), is characterized by a fall in pitch.

It is possible that the variation in pitch of the

penultimate Syllable, as high or low, is to be associated with Tempo, the high pitch being a feature of Fast, and the low pitch of Slow, Tempo.

i. Four Pitch Marks

1W

— — — — \

tshawe kjiqinduge:.

tsha-ba skye-gi'dug-gas.

'Have you fever (a temperature)?' (G. and R.).

2W

— — — — \

ŋeda ŋeqiŋɛ:.

bzhes-tha bzhes-kyi-yod-pas.

'Do you smoke (H.) tobacco (H.)?' (G. and R.)

For further section-i examples see Appendix III,
2121212121, b, i.

ii. Five Pitch Marks

This section comprises Negative forms corresponding to the Affirmative forms given in section i; e.g.

1W

- - - \

 tʌŋgimarise:.

btang-gi-ma-red-pas.

'Will he not send it?'

2W

- - - \

 par ʃʌ:giminduge:.

par rgyag-gi-mi-'dug-gas.

'Is he not printing it?'

For further section-ii examples see Appendix III,
2121212121, b, ii.

3.

Three Pitch Marks

In this section the first Particle Syllable is either a (Dubitative) or yod (if immediately followed by pa-red). This Particle Syllable is characterized by a fall in pitch (and cf. also section 2a, ii:

ʃiŋgiʔʌji:, shes-kyi-a-yin; Appendix III, 2121212121, 2a, ii: nʌŋgiʃe:re, gnang-gi-yod-pa-red; and 5b, ii: ʔʌji:, a-yin; ʔajū, a-yong, all of which are similar in this respect); e.g.

1W

de: thane cø:ʔajø:.

'da'i da-lta skyon-a-yod.

'I suppose you have not printed that here now.'

khamle trū:ʔə:re.

kham-la 'khrung-yod-pa-red

'He was born in Kham'.

2W

la re: tsəndu: ɣəbjə:re.

la red. btsan-dug rgyab-yod-pa-red.

'Yes, with aconite poison.' (Bell) (but cf. also Appendix III, 2121212111, Three Pitch Marks).


For further Section-3 examples see Appendix III, 2121212121, 3.

Four Pitch Marks

This section contains General-Interrogative forms in pas corresponding to the Three-Pitch-Mark Indicative forms in yod-pa-red. In this type of example the final Particle Syllable (pas) is characterized not by a fall in pitch (as in 2b above) but by a low and level pitch (cf. also jə:riɕe:, yod-pa-red-pas/yog-red-pas,

Appendix III, 2121212111, b, Three Pitch Marks); e.g.
(no 1W examples have been noted in the material)

2W


dale thu: jɔbjo:riɕe:.


mda'-la dug rgyab-yod-pa-red-pas.

'Will the arrows be poisoned?' (Bell).

4.

Here the Group-2 Particle is na (Exclamatory);
and the following Particle, which is final in both Word
and Clause, is a. The Group-2-Particle Syllable is
characterized by a high and level pitch and the final
Syllable by a fall in pitch; e.g.

2W


ne: pingja de: jo:ne'a:.

nga'i spun-kyag mdas ('di-ru) yod-na-a.

'Would that my brother were here.' (Bell).

5.

The pitch patterns given in this section apply,
with few exceptions (section a,i), only to Words in which
the Verb belongs to the Verb-Complement sub-category.

a. Word-final Fall in Pitch

This section deals with those Words in which a fall

i. in pitch is associated with the final (and Particle) Syllable, the preceeding Syllable or Syllables being low and level in pitch. Section a is sub-divided into sections i and ii.

i.

The Particle concerned here is pa/ga/nga (Exclamatory); and the Verb is a member of the Main-Verb sub-category. It so happens that no 1W examples have been noted. The examples are disyllabic; and only one Syllable therefore precedes the Syllable characterized by the fall in pitch (but cf. section ii); e.g.

(2W)

- \
driga.

bsgrigs-ka, [sic].

'Quite right!'

ii.

In this section, and all the remaining sections of section 5 (b, i-ii), the pitch patterns illustrated are peculiar to Words and Phrases in which the Verb belongs to the Verb-Complement sub-category. Since all eight members of this sub-category are Tone-Two-Word Verbs, it is not possible to provide contrasting examples of Tone-One Words. The pitch patterns associated with these Words may comprise two, or three,

pitch marks; where there are three, the initial Syllable is a Particle Syllable (Negative Particle, ma/mi); where there are two, it is a Verb Syllable.

The final Syllable is in either case a Particle

Syllable: pas/gas/ngas, ga/ka (Special-Interrogative), pa/ga/ka/nga (Exclamatory), dang; e.g.

Two Pitch Marks

na be jimbe: nga-pa vin-pas.

'Is it the fifth?'

tha thirī: khsā: de: kalē: pū:lə tjini di kəmse: duga.
da da-rin kha-sa[ng 'da'i ka-lan sbug-la] snvi-ni 'di
dkon-sa'i 'dug-ka.

'What a shortage of sugar there is here in Kalimpong these days!'

This pattern is appropriate to Vb. + Part. Words in which the Particle is exemplified by ga (Special-Interrogative) provided that the Verb is exemplified by 'dug, and not by yod or vin (for which see pp. 209-10); e.g.

— — — — — \ — — —
 tha ʃɛmbe kamʒ: khari ʃuʃu duqa.

[da] gzhan-[pa] bka'-mol ga-re zhu-rgyu 'dug-ka.

(Special Interrogative).

'And now other topics of conversation --- what remains to be said?'

Similarly, where the Verb is exemplified by red or yod and the Particle by dang (General-Interrogative), it is the Particle Syllable that is characterized by a fall in pitch; e.g.

— — — — — \ — — —
 ri tã:.

red dang.

'Is that so?'

Three Pitch Marks

In this section the final, and Particle, Syllable is either the General-Interrogative-Particle Syllable pas/gas/ngas, or the Exclamatory-Particle Syllable pa/ga/ka/nga; e.g.

— — — — — \ — — —
 jiylɛ: minduge:.

yig-lan mi-'dug-gas.

'Is there no answer to the letter?' (G. and R.).

For further section-ii examples see Appendix III, 2121212121, 5a, ii.

b. Word-Initial Fall in Pitch

This section deals with the Words in which it is the initial Syllable, a Particle Syllable, either a (Dubitative) or ma/mi (Negative), that is characterized by a fall in pitch, from a low level in the case of ma/mi (section i), and from a high level in the case of a (section ii).

i Low Fall

Examples in this section are disyllabic; e.g.

ma: di jakpo mindu.
 mar 'di yag-po mi-'dug.

'This butter is not good' (G. and R.).

The above example is of a Vb. + Part. Word (Vb.: 'dug; Part.: mi); the same pitch pattern has been noted for a Part. Word, also mi-'dug, as in the second utterance, at (b) below:

a. da nga-'tsho bod-pa'i mi de kha-shad-la yar ha
yag-po go-gi-mi-'dug. (Vb.: go; Part.: gi, mi, 'dug).

'Now, some of us Tibetans up there would not understand it properly.'

b.

la mindu.

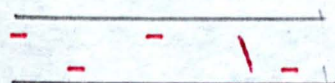
[la mi-'dug.]

'No, you would not.'

For further section-i examples, see Appendix III,
2121212121, 5b, i.

ii. High Fall

Two Pitch Marks

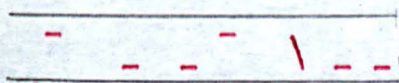


la dindre: ʔ^jĩ:.

la 'di-'dras a-yin.

'I doubt whether it is like that.'

Three Pitch Marks



tʃhã: di jagu ʔ^jĩ:ne.

chang 'di yag-po a-yin-na.

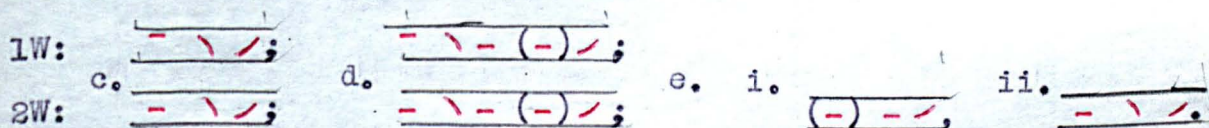
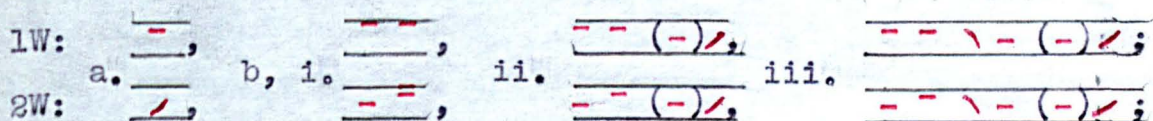
'I doubt whether this beer is all right, mm.'

The Particle na is the Exclamatory Particle.

For further section-ii examples see Appendix III,
2121212121, 5b, ii.

2121212122. Intonation Two

The criterion of Intonation Two, as against Intonation One, is a Clause-final high and level pitch or a rise in pitch (cf. also 2121212112), the 1W and 2W patterns being as follows:



In the case of monosyllabic, disyllabic, and some trisyllabic, Tone-Two examples a difficulty arises; for their pitch behaviour (—, —, —) considered in isolation, is equally appropriate to the final Word of an Emphatic Clause. In allotting examples as between the Emphatic and the Non-emphatic Intonation-Two Clause, therefore, the deciding factors have been on the one hand situational features,¹ and on the other, the pitch behaviour of other Words in the Clause: where the immediately preceding Word has a pitch pattern appropriate to the Emphatic-Intonation Clause, the 2W example in question is considered in the section dealing with Emphatic Intonation (2121212222).

a.

All the examples in this section are Verb Words.

1W

fi: dɛwa - - - khaʃɛ:qi ʃɛ:sɛ tɕa:ni ʃɛ: ʃiŋgiɔ:mare.
shes. de-pag - - - kha-shad-kyi[s] zhe-sa tsang-ni bshad
shes-kyi-yod-ma-red. (Imperative Sentence).

'You know, I think there are some people in this district

¹ The author of the thesis was, if not actually present in the same room as the speakers, at least within earshot, while recordings were being made.

that do not know how to speak in the Honorific Style at all.'

shes is the only example to be recorded in which an Imperative Sentence is characterized by Intonation 2; there are therefore no 2W examples.

2W

khā: mēnzc: mifi: jagbu --- jagbu fibu fik du:.

gang min-mdzad mi-gshid yag-go yag-go zhe-po gcig 'dug.
(Indicative Sentence).

'Incredibly good-natured --- he is very good-natured.'

In this instance Intonation Two suggests that the speaker's utterance is not yet complete.

For further examples see Appendix III, 2121212122, a.

b.

In section (b) (cf. also 2121212121, 2) all the examples have in common the fact that the first Particle Constituent in the Word (the second Syllable) is gi/gyi/kyi. With certain exceptions specified elsewhere (2121212111, b), all occurrences of this Particle Syllable are characterized by a high pitch.

i.

Here the Particle gi/gyi/kyi is final in the Word. No Tone-One example appears in the sources, though there

is no doubt that such an example is possible.

2W

ne: le:sa: drugi drugi tshigijī:

ngas lhas-sa-la 'gro-gi 'gro-gi byed-kyi-yin.

'I shall keep on going to Lhasa.'

For the second 'gro-gi see 2121212221, Two Pitch Marks.

ii.

Examples in this section include pitch patterns with three, or four, pitch marks, hence the enclosing of the third of these in brackets.

Three Pitch Marks

Here the final rise in pitch characterizes one of the Particle Syllables vin, vod, red, 'dug, man, mad (cf. the Intonation-One examples, 2121212121, 2a, i); e.g.

1W

tshē:ſī:, - - - ſu:le dijā: tshayba: nangidu:

byas-bzhin, - - - bzhugs-la'i de[-yang] tshag-par
gnang-gi-'dug.

'Therefore, - - - later on, too, you produce this too, the letterpress.'

2W

one tharī: gəŋbe fugejī: 'o-na da-ring dgongs-pa zhu-gi-yin.

'Well, I will say good-bye for to-day.'

Like the examples in section (a) above, Intonation Two here suggests that the speaker has not yet completed his utterance.

Four Pitch Marks

The final Particle of the Word is pa/ga (Corroborative Interrogative) and the preceding Particle red (with pa) or 'dug (with ga). The final Syllable is characterized by a rise in pitch, and the penultimate by a low and level pitch; e.g.

1W

tha ā:zu phəbe: tʃhe:nə, khōsā: dawa tʃiqiriba: da nga-'tsho bod-pas byas-na, gung-sang. de-pag [gcig-gi-red-pa].

'Now, if we turn it into Tibetan, "holiday". It is the same, is it not, in this district?'

2W

duks siqiriba: 'dug-se zer-gyi-red-pa.

'That is what they will say, will they not?'


For further section-ii examples see Appendix III,
2121212122, b, ii.

iii.

Five Pitch Marks

The final Particle will be one of the Interrogative
Particles: Corroborative, pa/ga; General, no, dang;
while the Particle following the Group-2 Particle
(gi/gyi/kyi) will be either yod, or the Negative
Particle ma/mi. The final Syllable is characterized
by a rise in pitch, and the third Syllable of the Word
by a fall; e.g.

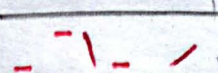
1W


me: seneni, ja: thyng:ri:ba:

med, zer-na-ni, [yar] thon-[gyi]-yod-pa-red-pa.

'As for if you say "no, we have not", "there is one
starting up up there, is there not?"' [they reply].

2W


dri:go:r ta: bsgrigs-kyi-yod-red dang.

'Are they arranged?'

Six Pitch Marks

This section contains Negative forms corresponding
to some of the Affirmative forms given in the previous

section, and further Interrogative forms in no; e.g.

1W

finqio:mariba: shes-kyi-yod-pa-ma-red-pa.

'I do not think they know it, do they?'

2W

khoranzu dödzi lî:lə de:qejo:jimbəno.
kho-rang-'tsho rdo-rje gling-la bsdad-kyi-yod-pa-yin-pa-no.

'Are they staying in Darjeeling, do you think?'

For further section-iii examples see Appendix III,
2121212122, b, iii.

c.

The Group-2 Particle in this case is a (Dubitative);
and it is the Syllable corresponding to this Particle
that is characterized by a fall in pitch; e.g.

1W

tʃɛ: thu:ʔajɕ: bcad thub-a-yong.

'They would not be able to cut it, I suppose.'

2W

tha tʃhūajū. da byung-a-[yong].


'There will not be any now, I suppose.'

d.

The Group-2 Particle in this section is yod, followed by pa and red; and it is this Particle Syllable that is characterized by a fall in pitch (cf. also Intonation One, 2121212121, 3), while the final Particle is either pa/ga (Corroborative Interrogative) or dang (General Interrogative); e.g.

Four Pitch Marks

2W

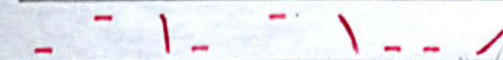

de: ma: fu:jo:ri tã:. 'da'i mar bzhugs-yod-pa-red dang.

'Do they live down here, do you think?'

Five Pitch Marks

These are the pitch patterns for the Negative forms corresponding to the Affirmative forms given under Four Pitch Marks; e.g.

1W


kh3:lu nãle phe:jo:mariba:.

daung-lo lnga-la phebs-yod-ma-red-pa.

'He has not reached five yet, has he?' (G. and R., adapted).

2W

- - \ - - /
par t̪bjo:mariba:. par rgyab-yod-pa-ma-red-pa.

'They have not printed it, I suppose, have they?'

For further section-d examples see Appendix III,
 2121212122, d.

e.

The forms in this section are confined to Words in which the Verb is exemplified by a member of its Verb-Complement sub-category, hence the fact that no 1W patterns are given.

i.

The Particle category is exemplified in the final Syllable by either pa/ga/nga (Corroborative-Interrogative) or dang (General-Interrogative); and it is this Particle Syllable that is characterized by a rise in pitch. In pitch patterns with three pitch marks the Particle category can also be represented in the initial Syllable, by the Negative Particle ma/mi.

Two Pitch Marks

/ - - /
jā: t̪hut̪ri r̪iba:. yang chu-spre red-pa.

'It is also "chutti", is it not?' [chuttī (Nepali) = 'holiday']

Three Pitch Marks

thei pe: lɔbɲɛ:s minduea. de'i sngas slab-nyan-se mi-'dug-ga.

'Before that there was no-one that taught it, you know?'

ii.

The final Syllable here is the Particle Syllable na (Exclamatory); e.g.

naranz gɟiris prɪ:s phitre seɲɛ: ʃik duqane.

[nga-rang-'tsho'i] ghi-ri-si phi-rin-si phi-tar zer-nyan
gcig 'dug-ga[-na].

'We have someone here called Prince Peter of Greece, have we not, mm?'

In the absence of the Exclamatory Particle na, the rise in pitch would have characterized the ga Syllable (Corroborative-Interrogative), as in section (i) above.

21212122. Emphatic Intonation

Those features of Emphatic Clause Intonation that are relevant to the Vb. + Part. Word, the Sentence-final Particle Word, and, where associated within the same Verbal Phrase with Sentence-final-Particle Word, the Vb. Word, include a number of pitch patterns that are specifically Emphatic. When associated with the appropriate grammatical type of Word, these patterns

are thus in themselves criteria of Emphatic Intonation without reference to other Words in the Clause. In other instances, however, the pitch pattern associated with a given Word of the Verbal Phrase may well be similar to one of the patterns already discussed in section 21212121 (Non-emphatic Intonation); and here the difference lies in the pitch behaviour of other Words in the Clause, particularly those which immediately precede and follow; for the prominence of the Word in question is related to, and varies with, the pitch behaviour of these other Words (cf. also 2121212122).

As in the case of the Non-Sentence-final Clause (2121211) a distinction may usefully be drawn between those Clauses in which the Word or Words that are the focus of interest at this point (the relevant Word or Words) are prominent (212121221), and those in which they are not (212121222). When not prominent the relevant Words have a low and level pitch, except that the pitch of the final Syllable may rise (Intonation Two, 2121212222; cf. also 2121212112, 2121212122); when prominent, on the other hand, the pitch falls at some point or other in the Word; e.g.

Word prominent: \ -, \ - - -, \ - \, - \, - - \, etc;
 " not prominent: - (- - - -), (- - - -) /.

212121221. Relevant Word Prominent

Where the relevant Word is prominent, the pitch exponents of Tone-One and Tone-Two Words in the Verbal Phrase are as stated for the Non-emphatic Clause (21212121): 1W, high pitch characterizing the Verb Syllable; 2W, low pitch characterizing the Verb Syllable. Here, too, it is necessary to set up a two-term Intonation system (Intonation One, Intonation Two); but, since the exponents of the two terms are as stated for the corresponding two terms of the Intonation system established for the Non-emphatic Clause, these two terms are not dealt with in the same detail as in the Non-emphatic Clause; and examples of both are given all together in the same section.

Some of the pitch patterns of the relevant Words do not differ in outline from those exemplified for the same type of Word in the Non-emphatic Clause; they are considered in section 2121212211. Those patterns which are peculiar to the Emphatic Clause, and are therefore criteria of it, are considered after them in section 2121212212.

2121212211. Similar Patterns to those of Non-emphatic Clause

Where the pitch patterns of the Emphatic Clause are

similar in general outline to those of the Non-emphatic Clause, the difference between the two is to be sought either, in the first place, in the pitch behaviour of neighbouring Words, or, secondly, in points of detail.

In the first place, then, the relevant Words of the Emphatic Clause that these common patterns characterize may be more prominent on account of the fact that these neighbouring Words have a low and level pitch instead of some other possible pitch pattern; e.g.

1W

— — — — —
 — — — — —
 — — — — —
kh5: khā: mze: jaqbu chinqidu:

khong gang min-mdzad yag-go mkhyen-gyi-'dug.

'He does know it extraordinarily well.'

2W

— — — — —
 — — — — —
 — — — — —
dyndra rere: nā:l the: sum soble jungju tshē:beif:

bdun-phrag re-re['i nang-la] theng gsum [sab-la]

yong-rgyu byas-pa-yin.

'Three times a week I have had to go to the Sahib.'

— — — — —
 — — — — —
 — — — — —
lxbdzū: rimbe khari khari tshiqijē:pa:

slab-sbyongs rim-pa ga-re ga-re byed-kyi-yod-pa.

'What sort of stage are you at in your schooling?'

A further feature of Emphatic-Clause Intonation is the fact that the last fall in pitch of the Sentence (which may or may not characterize the Verb Syllable) may be accompanied by a preceding rise (∧, ^); e.g.

fira jagu tʃhū:fa. zhe-drag yag-go byung-shag.

'That has turned out terrifically well.'

de: ma: phə: ʃū:nə phe:pʃ: kuŋə:nzə: sʌpju: kə:lə pə thənəjū.

['da'i mar] bod gzhung-nas phebs-nyan sky-ngos-'tsho['i]
gsar-'gyur skor-la (?[dpe thon]-a-[yong]).

'A copy would not be coming out, I suppose, with news of the Officials who are coming down here from the Tibetan Government.'

la re:nə. la red-na. 'Mm; yes, it is.'

di de:jā: bə: tha: rəbu tʃhə:masū.

['di 'da'i]-yang ['bad thag ra-po mchod-ma-song].

'Here, too, this was not in fact sort-of decided.'

namsā: chingidu:. nam-sang mkhyen-gyi-'dug.

'He knows immediately.'

In the case of Tone-two Words in which the Particle

category is exemplified by both gi/gvi/kvi and either yin, red, yod, 'dug, min, or med, as in the last example, then not only may the final Syllable be characterized by a rise-fall pitch (as in the last example), but the preceding Syllable, or Syllables, may be characterized by a low pitch; e.g.

-- ↑

drigire: 'grigs-kyi-red.

'It will do!' [and you are mistaken in thinking that it will not]; cf. the corresponding Non-emphatic form (2121212121, 2a, 1):

drigire: 'grigs-kyi-red. 'It will do.'

The former of these two examples might be collocated with some such preceding Word on the part of another speaker as: _dri'gi'ma-re, 'grigs-kyi-ma-red, 'it will not do'; the latter has no such possibility.

di: cengi jagu si tsa:n jungymindu:, sa.

de'i rkyen-gyis yag-go [cig] tsang-ni yong-gi-mi-'dug, se.

'For that reason they simply will not do, they say.'


2121212212. Exclusively Emphatic-Intonation Patterns

In addition to the two features of Emphatic Clause-
given in the preceding section there are certain pitch

patterns that are specifically Emphatic, and in themselves criteria of Emphatic Intonation irrespective of the pitch behaviour of other Words in the Sentence. All of these patterns have in common the fact that the final Syllable of the Clause is characterized by a fall in pitch, with the result that in the case of certain Sentence-final Words the Emphatic may be distinguished from the Non-emphatic Clause by the pitch behaviour of the final Syllable: falling (Emphatic); level and low (Non-emphatic). The Emphatic-Intonation patterns are the following three (i-iii):

i. two pitch marks

In section 2121212111, ii (Non-Emphatic), the pattern given for Words analysed as Verb Complement + Perfect Particle (shag/zhag) is: \ -, with the fall in pitch characterizing the initial (and Verb) Syllable; and a low and level pitch the final (and Particle) Syllable; e.g. ,tʃhʃi: -ʃa, byung-shag, 'it has turned out (very well); but in the Emphatic Clause it is with the final (and Particle) Syllable that the fall in pitch is associated, while the initial (and Verb) Syllable is low and level; e.g.



kusu: dɛbu lɛʃa, re. sku-gzugs bde-po yod-shag, red.

'It is: "you are looking very well".'

of the final vowel (mindu:, mare:) than for the corresponding Non-emphatic (mindu, mare).

ii. four pitch marks

Somewhat similarly, in section 2121212121, 2a, Four Pitch Marks; the patterns given for certain Negative forms are:

(1W), - - \ -; (2W), - - \ -; e.g. (1W), tan'gi'ma-re, btang-gi-ma-red; (2W), dri'gi'ma-re, grig-gi-ma-red.

In these Non-emphatic-Clause examples it is the Negative-Particle Syllable (and third Syllable) that is characterized by a fall in pitch; but in the Emphatic Clause it is the final Syllable that carries this fall; while the preceding Syllable has a low and level pitch; e.g.

1W

- - - - - \
tʃhe:dzā: tʃhipju: nanqimindu:

byas-tsang chibs-bsgyur gnang-gi-mi-'dug.

'And so he is not coming.'

- - - - - \
sā:pi: dādzi lingi trum tʃhimbu di tsho:qimare:

sang-nyin rdo-rie gling-gi khrom chen-po de 'tshog-gi-ma-red.

'Tomorrow Darjeeling's big market will not be held.'

2W

tsa:ni drigimare:.

tsang-ni 'grigs-kyi-ma-red.

'It will not do at all!'

The remarks on the greater vowel duration of the Emphatic-Intonation example made at section (i) above apply here too: du:, re:; cf. the du and re of 2121212121, 2a, Four Pitch Marks.

iii. three and four pitch marks)

In section 2121212111, b (Group-1 Particle), the patterns given for Interrogative forms that include the General-Interrogative Particle pas/gas/ngas are: (1W), \ (-) - -; (2W), \ (-) - -; e.g. (1W), ' nā:-dzun-ε:, gnang-byung-ngas; ' tā:-mē-dzun-ε:, btang-ma-byung-ngas; (2W), dzo:-dug-ε:, ' byor-'dug-gas; dzo:-ma-sun-ε:, ' byor-ma-song-ngas. In these examples a fall in pitch characterizes the initial Syllable of the Word (the Verb Syllable) alone; but in the Emphatic Clause both this Syllable and the final Syllable of the Word (the pas/gas/ngas Syllable) are characterized by a fall in pitch; e.g.

1W

kjə: lə: thəndzune:.

khyod glog mthong-byung-ngas.

'Did you see the lightning?' (Bell, altered).

khonggi ji:gi tʃik tã:medzune:.

khong-gi[s] yig-ge cig btang-ma-byung-ngas.

'Did he not send me a letter?'

2W

kʃø: dɔdʒi li:lə drɔnune:.

khyod rdo-rje gling-la 'gro-myong-ngas.

'Have you ever been to Darjeeling?' (Bell).

sambe di: gã:lə ta ʃø:ne, tʃhĩ:ne, khe: tʃhe:mejune:.

zam-pa 'di'i sgang-la rta bzhon-nas, phyin-na, ga'i byas-mi-yong-ngas.

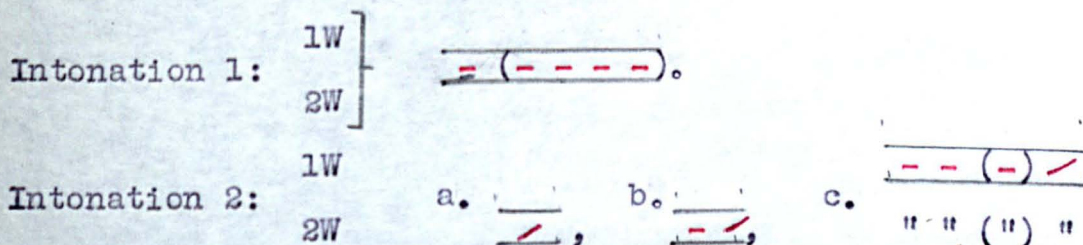
'Is it safe to ride over this bridge?' (Bell).

In addition to having, as the final Particle of the Word, the General-Interrogative Particle pas/gas/ngas, the above examples also have, as the first Particle Constituent of the Word, a member of the Group-1 sub-category (212121211). It is only in Words of which the first Particle is a member of the Group-1 sub-category that two Intonational possibilities are distinguished, in one of which (Non-emphatic) the final Syllable of the Word is characterized by a low and level pitch, and in the other (Emphatic) by a fall. Where,

on the other hand, the first Particle of the Word is drawn from the Group-2 sub-category, there is only one possibility for Interrogative forms in pas/gas/ngas: fall in pitch on the final Syllable (pas/gas/ngas).

212121222. Relevant Word not Prominent

When the relevant Word is not prominent, the possible pitch patterns of Tone-One and Tone-Two Words are the following:



The Verb Syllable is characterized by a low and level pitch in 1W and 2W alike; and the only possible variation in pitch behaviour relates to the final Syllable of the Word: a low and level pitch in Intonation-1 Clauses (2121212221), and a rise in Intonation-2 (2121212222). Brackets have been used to indicate that the Intonation-1 pattern applies to Words of anything from one to five Syllables, and the Intonation-2 in section (c), to Words of three or four (for the relations of phonetic pitch mark and phonological Syllable see p. 200, note 1).

From the above pitch patterns it is clear that in

all Intonation-1 Clauses and in Intonation-2 Clauses of type (c) the 1W pitch exponents are the same as the 2W. As far as such Clauses are concerned, therefore, no pitch criteria of Tones One and Two can be cited (for Tonal exponents other than pitch features see 212122).

In the material drawn on for the thesis all examples of the remaining patterns (Intonation¹₂, a-b) are 2W examples,

2121212221. Intonation One

Where possible, the examples chosen to illustrate Emphatic-Intonation Clauses in which the relevant Word is not prominent are, apart from Intonation, identical with examples used elsewhere to illustrate other types of Clause Intonation, both Emphatic and Non-emphatic. They are grouped under the heads: One Pitch Mark, Two Pitch Marks, etc, of which the One-Pitch-Mark section includes both Verb Words and Particle Words, the Two-Pitch-Mark section both Vb. + Particle and Particle Words, and the remaining sections Vb. + Part. Words only, e.g.

One Pitch Mark

1W

 / - \ -
ṇa: sū:ro: nā:.

nga-la gsung-roḡ ḡnang. (Imperative Sentence)

'Please tell me.' Cf. 2121212111, a, i.

2W

 - - - - - \ - - - - -
phyji: tō: ṣ phoṭrā: trē:mutsolejā: tō: ts kalṣp rābu [y:].

bod-yig tog-rtse pho-brang bkraś-mo-'tsho-la[-yang
tog-rtse] bka'slob ra-po zhus.¹ (Indicative Sentence).

'I also instruct the daughters at the Palace a little in Tibetan literature a little.'

 - - - - - / - - - - -
dini pugu dinzu ḡṇḡe lō: sōsu raṅgi phyri: tsarṃe:

 - - \ - -
thulo: khōndā: re.

de-ni pu-gu de-'tsho ṣḡang-ka log so-so rang-gi bod-[rigs]
ḡtsang-ma'i dog-log ḡon-bstang red. (Indicative Sentence).

'Next comes the way these children wear their own dress, the dress of those of pure Tibetan stock.' Cf. 2121212111, a, i.

¹bkraś-mo is a phonetic spelling used here instead of ḡras-mo to indicate that R. had used a pronunciation with initial tr rather than the probably more usual initial s (se:mu).

All the examples so far given in this section have been of Verb Words; an identical pitch pattern has been noted for Particle Words, e.g. yin in the second utterance, at (ii) below:

i. gsungs-rnams cig phul-ra-yin (Vb.: phul; Part.: ra, yin). 'I sang them a namthar.'

ii. lō: lēs. thagē rā: jī. lo le-si. da-ga rang yin.
'Yes, so you did.'

Two Pitch Marks

1W

tha tʃik di: nē:nē - - - babu la:ḡ sa:pju: nanḡ cōmbe nā:fa.
da cig de'i sngas-nas - - - sba-bu lags-kyi[s] gsar-'gyur
nang-[du] skyon-pa gnang-shag.

'For a long time now Babu La has printed them in the Newspaper.' Cf. 2121212111, b, Two Pitch Marks.

2W

nē: lē:sa: drugi drugi tʃhigijī:
ngas lhas-sa-la 'gro-gi 'gro-gi byed-kyi-yin.

'I shall keep on going to Lhasa.' Cf. 212121122, b, i.
The above pattern (low and level) seems to be usual for the second member of a reduplication not only in the Verbal Phrase but also for e.g. Adjective + Particle

Words.

khəle ngjəgbu ʃə:, ləbʃi. kho-la mgyogs-po shog. lab-shig.

'Tell him to come at once!'

tʃagba: thage ʃi:na:, ʃā: dɔba: ʃi:ne.

lcags-par da-ga yin-na, yang rdo-par yin-na.

'Is it really a type press, or is it a litho press?'

In this Alternative-Interrogative example it is the contrasting of rdo-par with lcags-par that is responsible for the lack of prominence of the second example of yin-na.

The above two-pitch-mark examples are all of Vb. + Part. Words; the same pitch pattern has also been noted for Particle Words, as in the second speaker's utterance, at (ii), below:

i. bod-yig-la tsang-ni dwangs-shes byed-kyi-mi-'dug-ka

(Vb.: byed; Part.: kyi, mi, 'dug, ka).

'They are not educated in Tibetan in the least, are they?'

ii. tsa:n mindu. tsang-ni mi-'dug.

'Not in the least.'

Three Pitch Marks

1W

— \ — — — \ — — —
dinzu kə:ləjā: dini thakjy: nānqidu:.

de-'tsho'i skor-la[-yang de-ni] dag-zhus gnang-gi-'dug.

'He is, then, revising everything to do with these too.'

Cf. 2121212121, a, i.

2W

— \ — — — \ — — — — —
phynzo:ǵ e: phynzo: la: jy: dīn di fuyji:.

phun-tshogs[-kyis phun-tshogs lags] brgyud-ni de-ni 'di
zhu-gi-yin.

'I will let you have it, then, by Phuntshog, er, through
Mr. Phuntshog.'

— — — — — \ — — — \ — — —
tha thirī: khsā: kalē: pū: tshawe tshase: minduqe:.

da da-ring kha-sa[ng ka-lan sbug] tsha-ba tsha-sa'i
mi-'dug-gas.

'Now Kalimpōng these days --- is it not a hot spot too?'

Cf. 2121212121, 5a, ii.

Four Pitch Marks

1W

tʃhale: jŷ: riŋdũ: khagadze ʃi nanejĩ:ne.

phyag-las yun ring-thung ga-gā-tsam [cig] gnang-nga-vin-na.

'For about how long did you work there?'

2W

tha de: khaba: ʃu:dɛ: dʒʌ:ŷjɛ:ne.

[da] 'da'i ga-bar bzhugs[-gdan 'jag-gi]-yod-na.

'Now where is he staying here?'

Five Pitch Marks

1W

dʒu:ma: dini phiye kje: dɛp ʃi so: nʌŋgiimbedra.

[mjug-mar] de-ni pha-ga'i skad debs cig bzo-ba gnang-gi-vin-pa-'dra.

'Then in the end he may perhaps write a language manual there.'

For further examples see Appendix III, 2121212221.

2121212222. Intonation Two

A rise in pitch characterizes the final Syllable in all cases. As stated above, all the examples in section (a) and (b) are 2W.

a.

The only Words to be recorded here are Verb Words, e.g.

di th5: tshimbu re: 'di mthong chen-po red.

[?] 'This is a great sight.'

The implication of this pattern is the same as that of 2121212122, a, ii: that the speaker has not yet completed his utterance.

b.

The final Particle here is either dang (General-Interrogative) or pa/ga (ka)/nga (Corroborative-Interrogative); and it is this Particle Syllable that is characterized by a rise in pitch; e.g.

phige: ndoba: rā: ri tā:.

'Is that really a litho press over there?'

- - - - \ \ - - ^ - /
 dīni tha thirī: khaṣā: t̪hale: thage rā: riba:
 de-ni da da-ring kha-sa[ng] phyag-las da-ga rang red[-pa].

'That, then, is your work at present, is it not?'

garanzø: phø:gi dini tambe: jøna.

nga-rang-'tsho['i] bod-kyi [de-ni] gtam-dpe yong-nga.

'There is, then, that Tibetan proverb of ours, is there not?'

For further section-b examples, see Appendix III,

2121212222, b.

Three Pitch Marks

1W

9je:zø rimbu tʃhe: kundʃ:le phagi ungo:gi ʃæbdʒi ʃo: nʌngyæ:.

rgyal-tshab rin-po che'i sku-mdun-la pha-gas dbu-'khor-gyi
zhabs-phyi zhus gnang-gi-yod.

'You were serving on the staff of the Regent there.'

2W

ʃu:lejæ: diŋ bʌbu la:le mʌʃi pɛ:sā: ʃuqyji:.

[gzhuɡ-la-yang de-ni] sba-bu lags-las [ma-gzhi]
snyan-gsang zhu-gi-yin.

'Later on, too, then, I will, actually, inform Babu La too.'

Like the earlier examples in which the final Particle is red, vin, yod, 'dug, min, or med

(2121212122, b, ii, Three Pitch Marks), the Intonation-two

pattern here implies that the speaker has not yet completed his utterance.

Four Pitch Marks

In this section the final Particle is one of the Interrogative Particles: pa/ga (Corroborative-Interrogative), no (General-Interrogative); and it is this Particle Syllable that carries the rise in pitch; e.g.

1W

— — — — — \ — — — — — /

thaga:s kamž: r̥bu ʃy: tʃhə:. --- ʃy: tʃhə:qyriba:.

da-ga-'i-se bka'-mol ra-po [zhus mchog]. zhus

mchog-gi-red-pa.

'We must have a spontaneous sort-of conversation. We must, must we not?'

2W

— \ — \ — — — — — /

khā: tʃine phembe r̥bu junqyriba:.

gang spyi-nas phan-pa ra-po yong-gi-red-pa.

'Some good will somehow come of it, will it not?'

For further section-c examples, see Appendix III, 2121212222, c.

A considerable number of examples has been given for the patterns in section 212121222 (Relevant Word not

Prominent), because they occur frequently in the recorded material. They are especially appropriate to Vb. + Part. Words in which the Verb is a member of the Auxiliary sub-category; and it is in fact seldom that such a Word is characterized by a pattern other than one of those given in this section (212121222), e.g.

thaga:s kamž: rəbu ʃy: tʃhə:.

da-ga'i-se bka'-mol ra-po [zhus mchog].

'We must have a spontaneous sort-of conversation.'

dəwa - - -khaʃɛ:gi ʃɛ:se tsa:ni ʃɛ: ʃinɕio:mare.

de-pag - - - kha-shad-kyi[s] zhe-sa tsang-ni bshad
shes-kyi-yod-pa-ma-red.

'Some people in this district, I think, have absolutely no idea of how to speak the Polite Style.'

thage nʌ:ʃi: tʃigi ja: thə:le ʃɛ:se khandrɛ:

tʃhe qugere.

da-ga nang-bzhin gcig-gi yar thog-la zhe-sa ga-'dras[byed
dgos-kyi-red].

'In just the same way, how you must use the Polite Style to superiors.'

2121213. Verb Word

In comparison with the complex statement required for an account of the pitch behaviour of the Grammatical Constituents of the Verb + Particle type of Word, the Verb Word presents few problems; and even these are reduced by the fact that certain Verb Words have already been dealt with in 2121212 (Verb Words that are Sentence-final, or are followed by a Sentence-final Verbal-Particle Word within the same Verbal Phrase). It is now the turn of the remainder, Verb Words immediately followed within the Verbal Phrase either by another Verb Word or by a Verb + Particle Word; and the examples are taken from both Sentence-final and non-Sentence-final Clauses.

The Verb-Word examples are grouped, like the preceding Verb + Particle-Word examples, by Clause Intonation into Non-emphatic (21212131) and Emphatic (21212132).

21212131. Non-Emphatic.

In the Non-emphatic-Intonation Clauses the pitch exponents of Tone-one and Tone-two Words are:

Tone One: high pitch;

Tone Two: low pitch.

In addition to these features, examples cannot be

uttered without a knowledge of such further Intonational detail as that the high, or low, pitch is also level:

1W, —; 2W, —; e.g.

di: kjɛŋgi dɪŋ fu:sale tʃa: thu:masũ:.

de'i rkyen-gyi [de-ni] bzhugs-sa-la'i bcar thub-ma-song.

'For that reason, then, it was not possible for me to visit your place either.'

jĩ:ne tha thare:gi sa:pju: di cø: tsharejĩne.

vin-na'i [da] da-[res]-kyi gsar-'gyur de skyon tsha-ra-yin-na.

'But did he, now, finish printing the present Newspaper?'

dĩ:ne ndi khã: tsha:ni, - - -

de-nas 'di'i khang tshar-ni, - - -.

'Next, when this has been filled right up,'

phø:dʒɛ: khømbelø phø:gɛ: ʈa: ma jĩ:ne,

bod-chas gon-pa-la bod-skad rgyab ma shes-na,

'If they do not know how to speak Tibetan, in spite of wearing Tibetan dress,'

thangbu jugy: gã:lə tri: nanbɛ: [Interruption].

dang-po shog-bu'i sgang-la bris [gman-ba'i] [Interruption]

'First the - - - of what you have written on the paper - - -.' [Interruption].

di: pɛ:lə ja: lɛ:sə rã:lə [su: su:bajĩ:na:, - - -
[Interruption].

de'i sngas-la yar lhas-sa rang-la bzhugs bzhugs-pa-yin-na,
- - - [Interruption].

'Were you living up in Lhasa itself before that, or
- - - [Interruption]'.

As an alternative to the level pitch a rise has occasionally been recorded for a Tone-Two Word followed by a Word with initially high pitch: 2W, ; e.g.

dinɛ: tha de: trikdi drik tsha:nɛ,

de-[nas da] 'da'i khrigs-te [bsgrigs tshar]-ni,

'Now, next, when you have finished fixing it to it tightly,'

21212132. Emphatic

Here again the pitch behaviour of the Verb Word depends on whether the Word in question is (212121321), or is not (212121322), prominent.

212121321. Relevant Word Prominent.

Where the Word under consideration is prominent, the pitch exponents of Tones One and Two are as stated in the previous section (Non-emphatic): 1W, high pitch; 2W, low pitch; but there are differences in Intonation: the level pitch (with a rise as a 2W alternative) described in the preceding section has no place here, and is therefore a criterion of Non-emphatic Intonation; in the Emphatic Clause the pitch falls; and the fall in pitch may or may not be preceded by a slight rise: 1W, ↘, ↗; 2W, ↘, ↗. In addition, the pitch patterns of following, and sometimes also of preceding, Words are frequently non-prominent, and thus bring the Verb Word into greater prominence than they would if they were characterized by some other pattern. In other words, the pitch of the following Syllable is usually low and level; e.g.

1W

— — — — —
 hadzã: dra thagu rã: sõ: thu:gymindu.

ha-cang sgra dag-po gsungs thub-kyi-mi-'dug.

'They cannot speak with a very good pronunciation exactly.'

jā: khā: tʃine phē: thō: drugre.

yang gang spyi-nas phan thog 'gro-gi-red.

'Some good is going to come of it, too, somehow or other.'

'adza la: kundŷ:l tʃa:go samdzŷi de:,

a-leags lags sku-mdun-la bear-dgos, bsam-byung 'da'i,

'I must go and see Auntie, I thought, but'

2W

tʃhuzy: tʃuŷzi phʌ:tu lɛ:go tʃhe guŷjə.

chu-tshod beu-geig bar-du las-ka byed dgos-kyi-yod.

'I have to work until eleven o'clock.'

thaga:s kamž: rəbu ʃy: tʃhō:

da-ga'i-se bka'-mol ra-po zhus mchog.

'We must have a spontaneous sort-of conversation.'

namdy: di tshadrā: ʃogu ʃogu dze: drugyduga.

nam-dus de tsha-grang mgyogs-po mgyogs-po bries

'gro-gi-'dug-ga.

'This climate goes and changes the temperature very quickly, you know.'

212121322. Relevant Word not Prominent

Here there are no pitch criteria of Tones One and Two and a low and level pitch (—) is an exponent of either Tone, e.g.

1W

— — — — —
 — — ^ — — — — — da-ga rang phul chog.
thage rä: phy: tsho:.

'I must sell it you for that.' (Bell, altered.)

2W

— — — — —
 — — ^ — — — — — da-ga rang ngas zhus mchog.
thage rä: ɲɛ: [y: tsho:

'Indeed I must tell him.'

— — — — —
 \ — — — — — brtson-'grus byed thub-na,
tsyndry: tshɛ thu:ne,

'If you can make an effort.'

The 2W examples are indistinguishable in pitch from the 2W examples in 21212131, Non-emphatic Intonation (—); they are assigned to the present section rather than to the former because of the pitch pattern of the following Word: since this pitch pattern is low and level throughout, a non-prominent pitch pattern in fact, it seems reasonable to treat the Verb Words in these examples as non-prominent also.

2121214. Particle Word.

The pitch behaviour of the following Particle Words has already been dealt with: Sentence-final-Clause (dang, gro/'gro, ma-myong, etc.), Non-Sentence-final-Clause ('de'i); it only remains to deal with the Negative Particle (ma/mi), which fits into neither of these two categories.

The pitch of the Negative-Particle Word is generally low and level (—); e.g.

— — — — — — — —
 — — — — — — — —
 tha m[^]ʃi sɔ:dʒa: phe: ma thu:dzã:,

da ma-gzhi gsol-ja'i phebs ma thub-tsang,

'Now since he cannot come to tea actually,'

— \ — — — \ /
 — \ — — — \ /
 dine: tʃhiʃju: ma nanzã:,

de-nas chibs-bsgyur ma gnang-tsang,

'Then, since he is not coming,'

— \ — — — \ —
 — \ — — — \ —
 naranzɔ: ʃiʃu ma ʃi:ne:,

nga-rang-'tshos zhe-po ma shes-na'i,

'Even though we do not know much,'

ma has, however, also been occasionally recorded with a high pitch; in which case it appears more

prominent than it would otherwise have done; e.g.

phø:dʒɛ: khømbələ phø:gɛ: ʃa: ma ʃi:nə,

bod-chas gon-pa-la bod-skad rgyab ma shes-na,

'If they do not know how to speak Tibetan in spite of wearing Tibetan dress,'

This prominence is all the greater where the Negative-Particle Word is characterized by a fall in pitch, and the following Word by a low level pitch, as in the following Emphatic-Intonation Sentences:

lɛ:sa: ma tʃhi: ʃanʒɛ: tʃhimbeʃi:.

lhas-sar ma phyin. rgyal-rtser phyin-pa-yin.

'Did not go to Lhasa. I went to Gyantse.'

phu: ranʒ phige: ʃi tʃigi mi: didu: ma təkbe:,

phug rang-gi pha-gas [a-ni] gcig[-gi] [mi'i] bde-sdug
ma tog[-pas],

'Through not taking into account the ultimate welfare of the people there,'

2121215. Verb + Nominalizing Particle (+ Nominal-Phrase Particle) Word

Words of this type need to be dealt with separately from Verb + Verbal-Particle Words; for they are

comprised not in the Verbal but in the Nominal Phrase, and are therefore only exceptionally final in Clause and Sentence. Since it is the final Phrase of the Sentence-final and Non-sentence-final Clause with which Clause-Intonation pitch patterns are so much concerned, it is not possible to make for the Vb. + Nomzg. Part. Word the sort of pitch statement, in which Intonation-One and Intonation-Two patterns were distinguished, that is obligatory in the case of the Vb. + Vbl. Part. Word (2121211 - 2).

It might be thought that the pitch behaviour of the Vb. + Nomzg. Part. (+ Nom. Part.) would be sufficiently similar to that of other component Words of the Nominal Phrase for a single statement to stand for both; but this is not so: certain Vb. + Nomzg. Part. Words, in which the Particle category is represented by e.g. dus, bstang, yag, resemble disyllabic Noun Words in their pitch behaviour; others, in which this category is represented by pa/bs/nga/ra/ga, resemble Noun + Particle Words in which the Noun is monosyllabic. There are therefore no economies to be had from a combined statement; and the pitch behaviour of the Vb. + Nomzg. Part. Word is therefore dealt with separately here.

A pitch exponent of Tone-One and of Tone-Two Vb. + Nomzg. Part. Words could, as in the case of the Vb. Word and the Vb. + Vbl. Part. Word in the Non-Sentence-final Clause (2121211), be:

1W: Word-initial high pitch: \sim/\wedge ;

2W: " " low " : $-\wedge/\wedge$;

but, in order to secure an identical pitch exponent for Tone-One and Tone-Two Vb. + Part. Words of all three types, this criterion had been abandoned in favour of the wider phrasing of necessity adopted for the Vb. + Sentence-final-Verbal-Particle Word (21212121, 2121212121, 5b).

1W: high pitch characterizing the Verb Syllable: \sim/\wedge ;

2W: low " " " " " " $-\wedge/\wedge$.

This Verb Syllable is also characterized, whether high or low, by either a level pitch or a fall in pitch; and in order to deal with this difference two further factors must be taken into account: Clause Intonation, and category of Particle.

It has already been stated above that the two-term Clause-Intonation system comprising Intonation One and Intonation Two is not relevant to the Vb. + Nomzg. Part. Word; but the other Clause-Intonation system already stated insofar as it concerns the

Vb. + Vbl. Part Word and the Verb Word, the two-term Emphasis Intonation system, is relevant; and the stating of the pitch behaviour of Vb. + Nomzg. Part. Word must take it into account: in section 21212151 are stated those patterns which may occur in Non-Emphatic-Intonation Clauses; in 21212152 are stated those patterns which can only occur in Emphatic-Intonation Clauses. These latter patterns are restricted to Emphatic-Intonation Clauses, and therefore provide criteria of Emphatic Intonation drawn from the Vb. + Nomzg. Part. Word; the former, on the other hand, are not confined to the Non-Emphatic-Intonation Clause, and have also been recorded in Emphatic-Intonation Clauses; they therefore do not provide criteria for the Non-Emphatic-Intonation Clause. It is in this sense that the term non-Emphatic-Intonation pitch pattern is to be understood, i.e. a pitch pattern that can be an exponent of either Emphatic-Intonation or Non-Emphatic-Intonation Clause, unlike the Emphatic-Intonation, which is confined to the Emphatic-Intonation Clause.







21212151. Non-Emphatic Intonation

Two types of non-Emphatic-Intonation pitch pattern are distinguished. In one of these (212121511) the Verb, and Word-initial, Syllable is characterized by

by a fall in pitch and the Particle Syllable or Syllables by a low and level pitch; in the other (212121512) the Verb Syllable is characterized by a level pitch, and the Particle Syllables either by level or by falling pitches as stated below. The difference in pitch pattern correlates with a difference in Particle: a fall in pitch characterizes the Verb Syllable when the Nominalizing Particle is pa/ba/ga/nga/ra (Group One); a level pitch characterizes the Verb Syllable when the Particle is any other Nominalizing Particle: dus, sa, rtsis, ta, mus, long, dog/dwogs, thabs, bstang, yag, nyan, rgyu (Group Two).

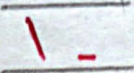
212121511. Group-One Particle (pa/ba/ga/nga/ra)

The pitch patterns of Words of this type are:

	a.	b.	c.
1W:			
2W:			

a. The patterns given here apply to s-Piece examples (2121312), in which the two Syllables, Verb and Particle, have a single vowel, e.g. shi-ba di.

Tone-One

	<u>shi</u> -ba <u>di</u> .	'The fact that it dies.'
<u>tsh</u> e: <u>di</u>	<u>phy</u> e-ba <u>di</u>	'The fact that he opens it.'

Tone Two

— \ — — — — \ — — — — —
 dzurma: dini phiye: kje: dəp ji sɔ: nʌŋgijimbədra.

[miug]-mag de-ni pha-ga'i skad debs cig bzo-ba
 gnang-gi-yin-pa-'dra.

'Finally, then, he will probably produce a language manual there.'

— — — — — \ — — — — — \ — — — — —
 thirī: de: sɔbgi bʌbu la: sɔ:dʒa: ndɛndrī: ʃo: nã:

da-ring 'das sab-kyi[s] sba-bu lags gsol-ja'i gdan-'dren
 zhus [sic; zhu-ba] gnang.

'The Sahib invited Babu La here to tea to-day.'

b. The patterns given at (b) apply (i), to s-Piece examples (2121312) in which the Nominal-Particle category is also exemplified as well as the Nominalizing; and (ii), to l-Piece examples (2121312) and to g-Piece, ŋ-Piece, d-Piece, n-Piece, b-Piece, m-Piece and r-Piece examples (2121311), whether or not the Nominal Particle is also exemplified.

i.

There are no Tone-One examples in the material.

Tone Two

thirī: sã: gja:le ndrøwε: namdy: re.

de-ring sang rgya-gar-la 'gro-ba'i nam-dus red.

Vb.: 'gro; Nomzg. Part.: ba; Nom. Part.: -i.

'It is the season for going to India these days.'

ii.

Tone One

phige: ce: r̥bu t̥aŋe naŋdã: di. (ŋ Piece).

[pha-gas] skad [ra-po gtang-ba m̥ang-bstang 'di].

Vb.: gtang; Nomzg. Part.: ba.

'The way they have there of sort-of shouting.'

pe: - - - th̥:dz̥i: b̥bu la:gi c̥ømbε: tshagba: di l̥ε:se

khy:l̥ th̥:dz̥i. (n Piece).

ngas - - - mthar-phyin sba-bu lags-kyi[s skyon-pa'i]

tshag-par de lhas-sa khul-la mthong-byung.

Vb.: skyon; Nomzg. Part.: pa; Nom. Part.: -i.

'I saw the letterpress printed by Tharchin Babu in the Lhasa area.'

Tone Two

di fū:lɛ: thubɛ: sɔ:bə bābu la:lɛ: . thubɛ: sɔ:bə di (z1 Piece).

['di] gzhung-las thugs-phan bzos-pa [sba-bu lags-las
thugs-phan bzos-pa] de.

Vb.: bzos; Nomzg. Part.: pa.

'The fact that this has been advantageous both to the Government and to Tharchin Babu,'

thudri: mɛ:bɛ: gā:lə, (d Piece).

thugs-brel med-pa'i sgang-la,

Vb.: med; Nomzg. Part.: pa; Nom. Part.: -i.

'- - - when you are not busy.' (Bell)

In the above examples the Nominal-Particle category has been exemplified only by -i; and, since the Nominalizing Particle has in all cases been pa/pa/ga/nga/ra one pitch mark has sufficed for both Particle Syllables, e.g. wɛ:, ba'i; bɛ:, pa'i. Examples have also been recorded in which the Nominal Particle has been some Particle other than -i, e.g. la; and an additional pitch mark has been needed, as in section (c) below.

c. The patterns given at (c) apply to examples in which the Nominal-Particle category (la) is exemplified

in the Word; e.g.

Tone Two

tʃhudzy: gu dʊŋələ

chu-tshod dgu rdung-nga-la

Vb.: rdung; Nomzg. Part.: nga; Nom. Part.: la.

'On its striking nine.' (Bell, altered).

212121512. Group-Two Particle (dus, sa, rtsis, etc.)

The pitch patterns of Words that include a Group-Two Particle are the following, in all of which the Verb Syllable is characterized not by a falling pitch, as in the previous section, but by a level pitch:


1W:		b.		2a.		b.	
2W:		b.		2a.		b.	

The two-pitch-mark patterns given in this section cover Words of two different grammatical types: (i), Vb. + Nomzg. Part., the Particle Syllable being either of the type with short final vowel (ta, sa, rgyu) or of any other type (bstang, yag, nyan, rog, long, dog/dwogs/rdog, thabs); or, (ii), Vb. + Nomzg. Part. + Nom. Part., the Nomzg.-Part. Syllable being of the former type only (rgyu, sa). Which of the two section-1 patterns, (a) and (b), is appropriate to Words of these types depends on whether there is a following Word, and, if so, what is its pitch

pattern: where there is no following Word, or where the pitch pattern of the following Word is invariably low and level initially, the (b) patterns apply; where the initial pitch of the following Word is other than this, and therefore high, whether falling or level, then the (a) patterns apply; e.g.

a.

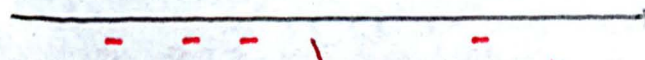
Tone One


khonā:zu sundy: khā:ni, kho-nag-'tsho gsungs-dus sgang-nas,

Vb.: gsungs; Nomzg. Part.: dus

'When they speak,'

Tone Two

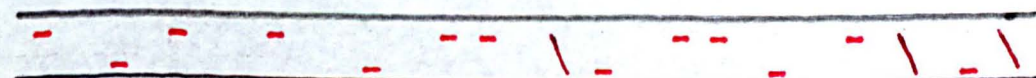

thy:ȳ: phige: kamȳ: judy: khā:ni,
dus-rgyun pha-gas bka'-mol zhu-dus sgang-ni,

Vb.: zhu; Nomzg. Part.: dus.

'Constantly, when I talked there,'

b.

Tone One


tha thirī: khsā: de: kalē: pū:le t̄jini di komse: duga.

da da-rin kha-sa ['dir ka-lon spung-la] spyi-ni de
skom-sa'i 'dug-ka. Vb.: skom; Nomzg. Part.: sa;

Nom. Part.: -'i.

'What a shortage there is too of this sugar here in Kalimpong these days.'

ji:gi: bu:lejā: lə:ja: vi-g-ge['i sbug-la-yang] klog-yag.

Vb.: klog; Nomzg. Part.: yag.

'Reading literature too.'

Tone Two

tharē: di tri:ja: di sy: --- sy: jī:ne.

da-[ran] 'di bris-yag 'di [su'i] su'i vin-gnang.

Vb.: bris; Nomzg. Part.: yag.

'Now, whose --- whose writing is this?'

pə:me janze: dross: lamga di riße:

padma dbyang-tse[r] 'gro-sa'i lam-'gag 'di red-pas.

Vb.: 'gro; Nomzg. Part.: sa; Nom. Part.: -'i.

'Is this the road to Pemionchi?' (Bell)

rəp jə:sa: lamga: khandre: jə:ba:.

rab yod-sa-la lam-ka ga-'dra[s] yod-pa.

Vb.: yod; Nomzg. Part.: sa; Nom. Part.: la

'What sort of road is there by the ford (lit. at the ford-existing place)?' (Bell).

2a. These three-pitch-mark patterns are appropriate to Words in which the Nomzg. Part. is not z-Piece (yag, nyan/mkhan, bstang, thabs), and in which the Nominal-Particle category (gi/gyi/kyi, gis/gvis/kyis, la/-r, nas, du) is also exemplified; e.g.

Tone One

— — — — — \ — — — — — \ — — — — — \ — — — — —
 tha ranzø: nde: londen junivasi: leydzar nã:neng seb tji jø.
da nga-'tsho'i 'dir lon-don yu-na-pa-si-ti legs-sbyar
gnang-nyan-gyi sab gcig yod.

Vb.: gnang; Nomzg. Part.: nyan; Nom. Part.: gyi.

'We now have here our --- a Sahib who gives lectures at London University.'

Tone Two

— — — — — \ — — — — — \ — — — — — \ — — — — —
 di jige tsene: jongengi tshongbe: kanzji fada: re.
'di gzhis-ka rtse-nas yong-mkhan-gyi tshong-pa'i rkang-rjes
sha-stag red.

Vb.: yong; Nomzg. Part.: mkhan; Nom. Part.: gyi.

'They are only the footprints of traders coming from Shigatse' (Bell).

The section (2a) patterns are also applicable to Words containing z-Piece Nominalizing Particles (sa, rgyu) provided that these syllables do not, as in section (1), share an vowel with the following Particle.

Syllable, with the result that the two Syllables are phonetically monosyllabic. In the following Tone-Two example with the same pitch pattern the Nominal-Particle is exemplified twice, by la and by yang (la'i is phonetic spelling of la-yang).

di: kjɛŋgi ja: diŋ fu:salɛ: tʃa: thu:masʈi.

de'i rkyen-gvi yar [de-ni] bzhugs-sa-la'i bcar thub-ma-song,

Vb.: bzhugs; Nomzg. Part.: sa; Nom. Part.: la, -i.

'For this reason, then, I was not able to come up to your place too.'

The patterns given in section 2, both (a) and (b), are also appropriate to Words in which another Nominal Particle 'tsho, is exemplified. In such Words the Nominalizing Particle nyan must also be exemplified. The (a) patterns are appropriate to Words that precede a Word that has initial low pitch; and the (b) patterns to Words that precede a Word that has initial high pitch; e.g.

Tone One

jagbu re:, sʈi:ɲenzu tsa:ne mindu.

yag-go [red gsung]-nyan-['tsho] tsang-ni mi-'dug.

Vb.: gsung; Nomzg. Part.: nyan; Nom. Part.: 'tsho.

'There would not be a soul that would say "it is good".'

Further examples of all the patterns given in section 21212151 are given under the same reference in Appendix III. This has been done in order to include at least one example of a pitch pattern appropriate to each of the members of the Nominalizing-Particle category.

21212152. Emphatic Intonation

The Emphatic-Intonation pitch patterns are divided, like those of the Verb + Particle Words, into two groups: (a), patterns appropriate to Words that are prominent; (b), patterns appropriate to Words that are non-prominent.

a. Prominent-Word Patterns

These patterns have been recorded (i), for Words in which the Particle is exemplified by one of the following three members of the Group-Two category of Particle: bstang, yag, rgyu; though it is possible that the same pitch patterns may be appropriate to other members of this category too; and (ii), Words containing the Particle 'tsho.

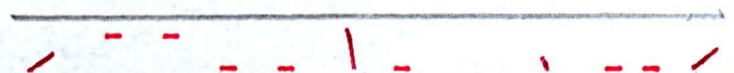
In section 21212151 a level pitch was associated with the Verb Syllable of Words containing one of the three Particles bstang, yag, rgyu; here, in (i), a fall in pitch is associated with the Verb Syllable; in (ii), a fall

in pitch is associated with the Nominalizing-Particle Syllable nyan, the Nominal-Particle Syllable 'tsho being low:

Tone One: ; ;
 Tone Two: i. ; ii. ; e.g.

Tone One

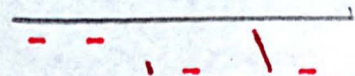
i.


 jā: sa:be ndrige nangju --- jo:jimbeno.

yang gsar-pa bsgrigs-ka gnang-rgyu vod-pa-yin-pa-[no].

Vb.: gnang; Nomzg. Part.: rgyu.

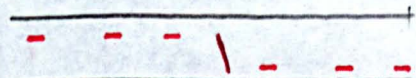
'Would there be --- new ones for you to set up too?'


 l̥e:sə rangi ʃø:tā: lhas-sa rang-gi shod-dang[sic].

Vb.: shod; Nomzg. Part.: dang [sic; for bstang].

'The real Lhasa manner of speech.'

ii.


 tʃhabi l̥o:p̥e:zu ʃi:n̥e, phyag-dpe klog-nyan[-'tsho] vin-na'i,

Vb.: klog; Nomzg. Part.: nyan; Nom. Part.: 'tsho.

'Being people who read books,'

Tone Two

 - - \ - \ - \ - - \ - -
dini ji:gi: kə:lə diŋe: di kamø: duks̺ fujɯ qəŋ
de-ni yig-ge'i skor-la [de-rgyas 'di] bka'-mol - - -
zhu-rgyu yod-se, Vb.: zhu; Nomzg. Part.: rgyu.

'Next, you will have to say this much on the subject of the written language".'

 - - \ - \ - -
dini ʃɛ:sə tʃhetʃ: du:sə rə.
de-ni zhes-sa byed-ltang[sic] 'dug-se red.
 Vb.: byed; Nomzg. Part.: ltang [sic; bstang]

'Next, the polite style is like this.'

b. Non-Prominent-Word patterns

Words that are non-prominent are characterized by a low and level pitch throughout, but with the alternative of a final high pitch (ii), irrespective of whether the component Syllables are Verb or Particle, Group-One Particle or Group-Two (cf. also the Vb. + Particle Word, 212121122, 212121222):

Tone One	}	1. <u> - - (-) </u> ; ii. <u> - - - </u>
Tone Two		

i. Non-rising

phɛ:ɣɛ:gi kamɔ̃: sundy: khʰɿ:ni,

phad-skad-kyi [sic; phal-skad-kyi] bka'-smon [sic;
bka'-mol] gsung-dus gang-nas,

Vb. (1W): gsung; Nomzg. Part.: du.

'When we speak the colloquial,'

thaṅbu ndi khaba: lɛbɛ naṅbeji:ne ɲanzu tɕagba: drigbɛ naṅɟu.

dang-po 'di ga-bar slab-pa gnang-nga[-yin-na] nga-rang-'tsho
lcags-par de bsgrigs-pa gnang-rgyu.

Vb.: (2W): bsgrigs; Nomzg. Part. (Gp.1): pa; Vb.(1W): gnang;
Nomzg. Part. (Gp.2): rgyu.

'Where did you first learn this, how to set up a type press?'

din ma: tʃi jʃ:rə: tʃhɛs, tʃhɛ:b,

de-ni [m]ar cig yong-rog byed-se, [byas-pas],

Vb. (2W): byas; Nomzg. Part.: pa; Nom. Part.: -s.

'Then, on their saying: "Please come down",'

Three Pitch Marks

jə:, səbela:, [yod, zər-ba-la],

Vb. (2W): zer; Nomzg. Part.: ba; Nom. Part.: la.

'On my saying: "we have",'

ii. Rising.

This pattern has been recorded for an example that contained the Clausal Particle ni:

re: sebeleni, red, zer-[ba-la]-ni,

Vb.: zer; Nomzg. Part.: ba; Nom. Part.: la; Cl. Part.: ni.

'On my saying: it is'.

The pitch features of the Non-Prominent Words (section b) provide no tonal criteria; which must be sought in Word-initial features (212122).

Further examples are given in Appendix III. 21212152.

212122. Word-initial Features

It is clear from sections 212121122, 212121222, 212121322, and 21212152 that under certain conditions there may be no Tone-~~One~~ and Tone-~~Two~~ pitch criteria; and 1W and 2W examples are thus, as far as any such context is concerned, tonally ambiguous from the point of view of pitch behaviour. In order to give it a tonal classification the Word concerned may then be tested in an intonational context in which there is no ambiguity. It may however not be necessary to seek the Word in a different context; for correlated with the pitch criteria of Word Tone there are certain Word-initial features; and these may establish the Tonal identity of the Word

regardless of ambiguous pitch behaviour. The Word-initial features in question are:

1W

- i. (Voicelessness + non-aspiration + {plosion): p t k c ?,
affrication): tʃ ts tr;
- ii. (" + aspiration + coronality): tsh sh;
- iii. (" + laterality): l;
o
- iv. (" + friction + apicality): r; e.g.
o

i.

- spar-gyi-'dug (pʌ:gidu:) he is raising, increasing;
- btang-gi-ma-red (tʌŋgimare) he will not send;
- kha skom-gyi-'dug (kumgidu:) he is thirsty;
- skyon-a-yod (cɔ̃:ʔajə) I do not suppose you have printed;
- snag-tsha dbur-gyi-'dug (ʔu:gidu:) he mixes ink;
- bcar-gyi-vin (tʃʌ:gɛjɪ:) I will call on;
- mig btsum-gyi-'dug (tsumgidu:) he blinks;
- sprad (trɛ:) dgos-kvi-mad [gro] perhaps they may not give;

ii.

- tshar-ra-vin-na (tsharejine) has he finished;
- ma tshang-bzhin (shʌ:ʃɪ:) not having been completed;

iii.

- lha-gi-'dug (lʌgidu:) he plaits;
- lhag-song (lʌ:sɔ̃) there was a surplus;

iv.

- hrob-kvi-'dug (rɔ̃bɡidu:) [ʔ] it is gritty.

Part. Words in which the initial category in the grammatical structure of the Word is the Particle (211142; e.g. mi-'dug, a-yin-na). [?]ʌjɪ:nə, a-yin-na (Part.: a; Vb.: yin; Part.: na), is treated as a Tone-Two Word because it satisfies the pitch criterion of Tone Two: low pitch characterizing the Verb Syllable (21212111). The fact that this Word is characterized by Word-initial (voicelessness + non-aspiration + plosion) (ʔ) is not relevant to the Tonal classification of the Word; for this (1W) criterion is operative only in the case of Words in which the initial grammatical category of the Word is the Verb.

Since the Word-initial features (Voicelessness + non-aspiration + plosion/affrication)(p t k c ʔ tʃ ts tr), etc., and (voice + plosion/affrication/friction + coronality) (b d g ɟ dʒ dr z), etc., are respectively criteria of Tone-One and Tone-Two, the Word-initial letters by which these features are symbolized may be regarded, in addition to their other functions, as Tone marks; e.g.

Tone-One Word

291

Any combination of p:			<u>dp-</u> ,				<u>sp-:</u>		p
			<u>dpv-</u> ,				<u>spv-:</u>		tʃ
							<u>spr-:</u>		tr
"	"	"	<u>t:</u>	<u>gt-</u> ,	<u>bt-</u> ,	<u>rt-</u> ,	<u>lt-</u>	<u>st-</u> } <u>bst-</u> }	t
"	"	"	<u>k:</u>	<u>dk-</u> ,	<u>bk-</u> ,	<u>rk-</u> ,	<u>sk-</u> ,	<u>bsk-:</u>	k (c) ¹
(except <u>kl-</u>)						<u>rky-</u> ,	<u>sky-</u> ,	<u>bsky-:</u>	c
				<u>dkr-</u> ,	<u>bkr-</u> ,		<u>skr-</u> ,	<u>bskr-:</u>	tr
Any combination of c:			<u>ge-</u> ,	<u>be-</u> ,		<u>le-:</u>			tʃ
"	"	"	<u>ts:</u>	<u>gts-</u> ,	<u>bts-</u> ,	<u>rts-</u> ,		<u>brts-:</u>	ts
-sr-:									tr
-db-:									ʔ
-tsh-, and any									
combination of <u>tsh</u> :			<u>mtsh-</u> ,	<u>tsh-:</u>					tsh sh ²
-lh-:									l o
-hr-:									r o

¹The alternative **c** applies to syllables in which the vowel quality is front and spread (**e**).

²**sh** is a Fast-Tempo alternative to **tsh**; e.g. ma tshang-bzhin, ma shā:ʃi:; cf. tshang-song, tshā:sō.

Tone-Two Word

Any combination of <u>b</u> : (except <u>by-</u> , <u>br-</u> , <u>bl-</u> , <u>db-</u> , <u>dbv-</u> , <u>dbr-</u>):		<u>'b-</u> , <u>'by-</u> , <u>'br-</u> :			<u>sb-</u> : <u>sby-</u> :		<u>b</u> <u>dʒ</u> <u>dr</u>
Any combination of <u>d</u> : (except <u>dr-</u>):		<u>'d-</u> , <u>'dr-</u> :	<u>rd-</u> , <u>brd-</u> ,	<u>ld-</u> , 	<u>sd-</u> <u>bsd-</u> }:		<u>d</u> <u>dr</u>
Any combination of <u>g</u> : (except <u>gv-</u> , <u>gr-</u> , <u>gl-</u>):	<u>dg-</u> , } <u>mg-</u> , }	<u>'g-</u> , <u>'gv-</u> , <u>'gr-</u> ,	<u>rg-</u> , <u>rgv-</u> ,		<u>sg-</u> <u>sgv-</u> :	<u>bsg-</u> : <u>brgv-</u> }: <u>bsgv-</u> }	<u>g</u> ¹ <u>ʃ</u> <u>dr</u>
Any combination of <u>j</u> : " " " <u>dʒ</u> :	<u>mj-</u>	<u>'j-</u> ,				<u>brj-</u>	<u>dʒ</u>
" " " <u>dʒ</u> :		<u>'dʒ-</u> ,	<u>rdʒ-</u> ,			<u>brdʒ-</u> :	<u>z</u>
<u>'-</u> :							<u>ə</u> , etc.

¹The alternative ʃ applies to syllables in which the vowel quality is front and spread (ɛ).

The remaining Word-initial features are not correlated with Tone-One or Tone-Two pitch criteria; and do not, therefore, provide Tonal criteria; they comprise:

- | | | |
|--|---|-------------|
| i. Aspiration, except + (coronality | } | ph th kh ch |
| + alveolarity: tsh) | | tʃh tʃ; |
| ii. Nasality: | | m n ŋ p; |
| iii. (Voicelessness + friction) (except | | |
| + apicality: r): | | s ʃ; |
| iv. (Voice + {laterality): | | l |
| the voiceless {friction + apicality): | | r |
| v. Semi-vowel articulation: | | j; e.g. |

Tone One

Tone Two

i.

- | | |
|--|--|
| phɛ:bɛ: <u>phebs-pas</u> did you come; | phɛ:bare <u>bros-pa-red</u> he ran away; |
| thɕ:dʒu: <u>mt hong-byung</u> I saw; | tha:nɛ: <u>dar-na'i</u> even if it spreads; |
| khaɲbere <u>khang-pa-red</u> it was full; | khugidu: <u>go-gi-'dug</u> he hears; |
| chingidu: <u>mkhyen-gyi-'dug</u> he knows; | che:gindu: <u>gas-kyi-'dug</u> it widens; |
| tʃhɛ:du <u>chad-'dug</u> 'it is split'; | tʃhɛ:ʃa <u>byas-shag</u> 'it has been done'; |
| tri: ʃɔ: <u>'khrid shog</u> 'lead here'; | tri:gi <u>bris-kyis</u> 'I am writing'. |

ii.

mu:gidu: rmug-gi-'dug 'it bites';

nā:dzū: snang-byung 'you have given me';

ṇagire: rnga-gi-red 'he will reap';

ṇungidu: snung-gi-'dug 'it is hurting him';

mē: de med de'i 'we have not, but - - -';

nagidu: na-gi-'dug 'it is painful';

ṇugindu: ngu-gi-'dug 'it is crying';

ṇengimindu nyan-gyi-mi-'dug 'he will not listen';

iii.

sungyduga gsungs-kyi-'dug-ga '(what) does he say';

ʃε:gures bshad-go-red-se '"you must explain"';

sigidu: zer-gyi-'dug 'he says';

ʃugyʃε: zhu-gi-yod 'I offer';

iv.

lanere blang-nga-red 'he stood it up';

lanere lang-nga-red 'he stood up';

re:ʃa dbral-shag 'he has torn it';

re:ʃa ral-shag 'it has been torn';

v.

jo:ʃejinzā: g.yog-pa-yin-tsang 'since you have covered yourself';

jo:jimbəno yod-pa-yin-pa-no 'there are, are there not';

Although the Word-initial sounds listed above (ph, th, kh, etc.) are common to both Tone-one and Tone-two Words, it does not follow that the way in which they are symbolized in the Tibetan orthography is also common to both types of Word; on the contrary, the initial **ph** of a Tone-One is regularly distinguished by symbol from

the **ph** of a Tone-Two Word, and so on right through the list. Thus, provided that a given orthographic form fairly symbolizes the LT Word for which it is used, then the Tone of that Word may be determined simply by inspection.¹ That this is so in the case of Words whose initial sounds are specifically either Tone-one (**p, t, k**, etc.) or Tone-two (**b, d, g**, etc.) has already been shown; it remains to show that the same Tone-marking principle also applies to Words whose initial sounds are common to both (**ph, th, kh**, etc.):

<u>Tone One</u>	<u>Tone Two</u>	
i.		
<u>ph-</u> , and any combination		
of <u>ph</u> : <u>ph-</u> , 'ph-	<u>b-</u> :	ph
<u>phv-</u> , 'phv-	<u>by-</u> :	tʃh ʃh ²
<u>phr-</u>	<u>br-</u> :	tr o

¹The Word mig, 'eye', for example, provides an exception. The initial m of the orthography suggests that this is a Tone-two Word, as indeed it is in Reading-Style utterances (mik); but in LT the pronunciation is 'mi:', and this pronunciation is sometimes correctly symbolized as dmig, a phonetic spelling (cf. m- and dm- below).

²**ʃh** has been recorded as a Fast-Tempo alternative to **tʃh**; e.g. **tʃhɛ:ʃi:**, **ʃhɛ:ʃi:**, byas-bzhin, 'therefore'.

<u>th-</u> , and any combination of <u>th</u> : <u>th-</u> , <u>mt</u> <u>h-</u> , <u>'th-</u>	<u>d-</u> : <u>dr-</u> :	<u>th</u> <u>tr</u> _o
<u>kh-</u> , and any combination of <u>kh</u> : <u>'kh-</u> <u>khy-</u> , <u>mkhy-</u> , <u>'khy-</u> <u>khr-</u> , <u>'khr-</u>	<u>g-</u> : <u>gy-</u> : <u>gr-</u> :	<u>kh</u> (<u>ch</u>) ¹ <u>ch</u> <u>tr</u> _o
<u>ch-</u> , and any combination of <u>ch</u> : <u>ch-</u> , <u>mch-</u>	<u>ɬ-</u> :	<u>tʃh</u>
11. A combination of <u>m</u> (except <u>my</u>): <u>rm-</u> , <u>sm-</u> , <u>dm-</u> <u>smv-</u>	<u>m-</u> : <u>mv-</u> :	<u>m</u> <u>p</u>
A combination of <u>n</u> : <u>n-</u> , <u>nn-</u> , <u>rn-</u> , <u>sn-</u>	<u>n-</u> :	<u>n</u>
A combination of <u>ng</u> : <u>mng-</u> , <u>rng-</u> , <u>dng-</u> , <u>lng-</u> , <u>sng-</u>	<u>ng-</u> :	<u>ŋ</u>
A combination of <u>ny-</u> : <u>mny-</u> , <u>rny-</u> , <u>sny-</u> , <u>ony-</u>	<u>ny-</u> :	<u>ɲ</u>

¹The alternative ch applies where the vowel quality of the initial syllable is front and spread (ɛ).

iii.		
<u>s-</u> , and any combination of <u>s:</u> <u>s-</u> , <u>sr-</u> , <u>gs-</u> , <u>bs-</u>	<u>z</u> , and any combination of <u>z:</u> <u>z-</u> , <u>gz-</u> , <u>bz:</u>	s
<u>sh-</u> , and any combination of <u>sh:</u> <u>sh-</u> , <u>gsh-</u> , <u>bsh</u>	<u>zh-</u> , and any combination of <u>zh:</u> <u>zh-</u> , <u>gzh-</u> , <u>bzh-</u> :	ʃ
iv.		
<u>kl-</u> , <u>bl-</u> , <u>brl</u> , <u>sl-</u> , <u>bsl-</u>	<u>l-</u> :	l
<u>dbr-</u>	<u>r-</u> :	r
v.		
<u>dbv-</u> , <u>g.y</u> ¹	<u>y-</u> : ¹	j

All the Word-initial features ascribed to either the Tone-One or the Tone-Two Word are of course respectively Tone-One or Tone-Two exponents, regardless of whether they do or do not serve as 1W or 2W criteria. These exponents are:

¹Following R. de Nebesky-Wojkowitz, (Oracles and Demons of Tibet, 's-Gravenhage, 1956), གཡ - is transliterated g.y-, in order to avoid confusion with རྩ -, which is transliterated gy-.

1W

voicelessness + aspiration/	}	ph th kh ch tʃh tʃh tr _o					
non-aspiration + plosion/affrication		p t k c tʃ ts tr					
glottality + plosion:							ʔ
laterality + voice/voicelessness:						l	l _o
friction + apicality + voice/							
voicelessness:						r	r _o
friction + non-apicality + voicelessness							
+ aspiration/non-aspiration:						s sh ʃ	ʃh
nasality:						m n ɲ	ŋ
semi-vowel:							j

2W

voicelessness + aspiration + plosion/							
affrication:		ph	th	kh	ch	tʃh	tr _o
voice + plosion/affrication:		b	d	g	ʃ	dʒ	dr
voice + friction:							r z
vowel:							ø ʌ
laterality + voice:							l
voicelessness + friction + aspiration/							
non-aspiration:						s ʃ	ʃh
nasality:						m n ɲ	ŋ
semi-vowel:							j

In the case of three examples Tone has a syntactic function: the 1W Verbs blang, dbral, and dbril, are confined to Transitive Clauses; the 2W Verbs lang, ral, and ril to Intransitive; e.g.

Transitive.

- i. (khonggi) ja: langidu:. (khong-gis) var blang-gi-'dug.
'He lifts him up.'
- ii. (") tʃhube di re:ja. (khong-gis) chu-pa'di
dbral-shag.
'(He) has torn the gown.'
- iii. (") do di ri:gidu:. (khong-gis) rdo 'di dbril-gyi-
'dug.
'(He) overturns this stone.'

Intransitive.

- i. kh5: ja: langidu:. khong var lang-gi-'dug.
'He gets up.'
- ii. tʃhube di re:ja. chu-pa 'di ral-shag.
'This gown has been torn.'
- iii. khonggi do di ri:gidu: khong-gi rdo 'di ril-gyi-'dug
'This stone of his gets
overturned.'

The Tone System is the only prosodic system that is stated for the Word; the following section (21213) deals with prosodic systems statable for the Piece.

21213. Piece Prosodies

Pieces comprise one, two, or three Syllables, and do not cross Word boundaries. The prosodic systems stated for the Piece are divided into four sections (212131-4) according to the type of features they deal with: 212131, associated vowel-duration, vowel-quality, and consonantal, features; 212132, labial and associated features, 212133, vowel-closure features; 212134, voice, voicelessness, and associated features.

The grammatical structure of the Piece may be:

(i) Verb (Quality, 212131111, 212131121; Quantity, 21213121; Labialization, 2121321; Fronting, 2121322; Rounding, 2121323; Palatalization, 2121324; Aspiration, 212134); (ii) Verb + Particle (Quality, 212131112, 212131122; Quantity, 21213122; Labialization, 21213211; Palatalization, 2121324; Closure, 212133); (iii) Particle (Quality, 21213112, 212131113; Labialization, 2121321); (iv) Noun (some containing one, or two, Verb lexical items: Initial, 2121313; Juncture, 2121314).

212131. Associated Vowel-quality, Vowel-duration,
and Consonantal, Features.

There are four prosodic systems that have to do with complexes consisting of vowel-quality, vowel-duration, and consonantal features: 2121311, Quality; 2121312, Quantity; 2121313, Initial; 2121314, Juncture.

The grammatical structure of these four types of Piece is:

2121311, Quality: Verb	212131111, 212131121
Verb + Particle	212131112, 212131122
Particle	212131122, 212131113.

2121312, Quantity: Verb	21213121
Verb + Particle	21213122

2121313, Initial: Noun (some containing Verb lexical items)

2121314, Juncture: " (" " " " ")

2121311. Quality

The Quality system is so named from the fact that it has been set up to deal with a complex of associated vowel-quality, consonant, and duration, features extending over a single Syllable or over two Syllables; e.g. in Verb Words, which are monosyllabic, (i), the vowel x is invariably associated with a following labial stop (p'), and with no other type of consonant; (ii), Syllable-final labial nasality (m) can be associated with the vowels ɪ , a , ɒ , and ɔ , but not with i , e , ɛ , α , ɔ , u , y , and ə ; (iii), long duration can be associated with the vowels i , e , ɛ , α , ɔ , u , ə , y , and also with ɪ and ɔ provided that these two vowels are accompanied by nasality (ĩ : õ :), but not with a , x , or v .¹

Similarly, features of the Particle Syllable pa/ba/
ga/nga/ra (bə gə rə) can be related to features of the preceding (Verb) Syllable within the Word: gə may be preceded only by i :, a :, ɔ :, and u :, bə by $\text{ɪg}'$, ag' ,

¹In 2121311, ɪ is distinguished from i , a from α , ɒ from ɔ , ə from u , and v from ə . Short duration is indicated by absence of the I. P. A. symbols : ('full length') and · ('half length').

ɔg', **oɔg'**, and **re** only by **ɪ**, **a**, **ɒ**, **ə**, **ɛ**, **ø**, and **y**;

e.g.

si:gɤre gzigs-pa-red 'he saw'; **ʃa:gɤre** bzhag-pa-red 'he put';

sɪg'bere " " " ; **ʃag'bere** " " "

tsɪrɤre gtsir-ba-red 'he squeezed'; **ʃarɤre** shar-ba-red 'it rose';

and so can features of the Particle Syllable tsang (**dz z**):

dz may be preceded by **ɪ**, **ɛ**, **a**, **ɔ**, **ə**, **i:**, **e:**, **ɛ:**, **a:**,

ɔ:, **u:**, **ø:**, **y:**; **z** by **ŋ**, **n**, **b'**, **m**; e.g.

ʃɪdzǎ: shi-tsang 'since it dies'; **tʃhe:dzǎ:** byas-tsang 'therefore';

junzǎ: vin-tsang ' " " is'; **nanzǎ:** gnang-tsang 'since he gives';

There are also Particle Syllables, whose features cannot be associated with features of the preceding Syllable but nevertheless require prosodic statement; for the vowel-quality of these Syllables can be related to features of vowel duration, and to the presence or absence of nasality, e.g. long duration combines with the qualities **ə**, **ɛ**, **a**, **y**, but not with **ɪ** unless accompanied by nasality (**ɪ:**), and not with **ɒ**, **ə**, **ɛ**, **a**; short duration combines with **ɪ**, **ə**, **ɛ**, **y**, **a**, **ɔ**, **ə**, **ʌ**, **ə**, and **ɛ**, but not with **a**; nasality combines with **ɪ**, **ɛ**, and **a**, but not with **ə**, **ɛ**, **ə**, **y**, **ɔ**, **a**, **ʌ**, **ə**.

The form of phonological analysis most suited to dealing with sequences of phonetic features that can

be shown to be interdependent and predictable is prosodic analysis, through which all such sequences are associated, as exponents of terms in prosodic systems, with units (the Pieces) containing whatever number of Syllables is appropriate to the sequence of features.

The complexes of syntagmatically related features illustrated in the preceeding two paragraphs are ascribed to Pieces comprising either one, or two, Syllables. An example of a monosyllabic Piece must also be either an example of a Verb Word; e.g. bzhugs (ju:) bzhugs-pa-yin-na, 'used you to live'; red (re:), 'it is'; ma 'gyur-ra [ra-po byas] (tʃhe:), 'telling them sort-of not to change', or an example of the exceptional type of Vb. + Part. Word in which the Verb Constituent is final (211142), e.g. a-yin (-jī:), 'I doubt whether it is', gas mi-'dug (-ndu:), 'it would not matter', ma-red (-re), 'it is not'. The disyllabic Piece must also be either itself an example of a Vb. + Part. Word, e.g. phyag-phebs gnang-byung (nā:dʒə), 'good morning', sleb-ni (le:nɪ), 'having got (there)', bzo-ba (sə:) gnang-gi-yin-pa-'dra, 'he will perhaps produce'; or else it must be part of a Vb. + Part. Word of three or more Syllables. This last type of Piece may

be, from a grammatical point of view, either Vb. + Part., with the Verb Syllable preceding the Particle, e.g.

bka'-mol gnang-bstang-gi (naŋtaŋ-), 'of the way they speak', bzhugs bzhugs-pa-yin-na (ʃu:bə-), or Part. + Part., e.g. ga-re byed-kyi-yod-pa (-jə:βa:), 'what do you do', ga-re gsung-gi-'dug-ga (-doga), 'what does he say'.

The Quality system comprises eight terms: z, g, ŋ, d, n, b, m, r; whence z Piece (zP), g Piece (gP), ŋ Piece (ŋP), etc.¹ The exponents of these eight terms differ somewhat according to the grammatical type of Piece in which each is exemplified and, accordingly, three separate statements of exponency are made: 21213111, Main-Verb, or Auxiliary-Verb, Piece; 21213112, Verb-Complement Piece; 21213113, Particle-only Piece.

21213111. Main-Verb and Auxiliary-Verb Pieces

The first of these three statements of exponency applies to monosyllabic and disyllabic Pieces in which there is a Verb Syllable belonging to either the Main or the Auxiliary sub-category of Verb.

¹Seven of the eight terms are named, for convenience, after the rjes-'jug g, ng (whence ŋ), d, n, b, m, and r of the Verb Syllable by which they are commonly represented in the orthography. For the remaining term the letter s might have been used on the same principle; for this term is sometimes represented by s, but, since this letter is also used to designate Shortness, one of the terms of another system (Quantity, 2121312), the letter z, which is not otherwise needed, has been assigned to it.

Phonetic criteria can be stated for seven of these terms, whereby a Piece may be identified as z, g, ŋ, n, b, m, or r; but the remaining term, d, has no criteria. It is, therefore, only negatively that a Piece can be identified as d, from the fact that it cannot be shown to be one of the others; any such Piece is taken to be d.

Although there are criteria for the identification of all the prosodic types of Piece apart from the d; and each one of them, therefore, has at least one feature, set of co-articulated features, or sequence of features, that is peculiar to it alone, many Pieces have features and sequences of features that are not peculiar to a single term of the system but common to two or more, though not to all **eight**; shared features such as these are regarded as partial phonetic criteria: they serve to distinguish a particular Piece from others as being, for example, either g, or d, or r; and they thus serve to exclude the possibility of its being z, ŋ, n, b, or m, though they do not provide grounds for identification. Those terms of the system which share a particular partial phonetic criterion clearly must also have a phonetic exponent in common; in fact there must be at least as many common phonetic exponents as

there are partial phonetic criteria.

Only the phonetic exponents of the eight terms of the Quality system are stated in the thesis, and not the criteria and partial criteria by which each is identified; but, after all the exponents have been stated, a few examples are given of exponents that are the same for more than one term, in order to draw attention to the fact that under certain conditions no criteria, but only partial criteria, can be cited for distinguishing them.

The exponents of each of the eight terms are stated first, at 212131111, with reference to the monosyllabic Piece, and subsequently, at 212131112, for the disyllabic.

212131111. Monosyllabic Piece (Verb Word)

The exponents of z, g, ŋ, d, n, b, m, and r are the following:

z: a. s Piece(2121312)

i. non-Clause-final

(short duration + the vowels **i**, **e**, **a**, **ɔ**, **ɔ̃**);

ii. Clause-final

(long duration + the vowels **i**, **e**, **a**, **ɔ**, **u**);

b. 1 Piece (2121312)

(long duration + the vowels *e*, *ɛ*, *ø*, *y*).¹g: i. (long duration + the vowels *i*, *a*, *ɔ*, *u*);ii. (short duration + the vowel *ɪ*), (velarity + voicelessness + occlusion) (*k'*).²ŋ: (long duration + nasality + the vowels *ɪ*, *a*, *ɔ*, *ɔ*).d: (long duration + the vowels *i*, *e*, *ɛ*, *ø*, *y*).n: i. (long duration + nasality + the vowels *ɪ*, *ɛ*, *ø*, *y*);ii. (long duration + the vowel *ɪ*), (dentality + nasality) (*n*).³

¹The difference in exponency between sections (a) and (b) is dealt with in 2121312, Quantity system, ~~and the difference between sections (i) and (ii) in 2121323.~~

²A velar stop is exceptional in Interverbal Junction outside Reading-Style utterances, but has nevertheless been included here for the sake of a single example (*drɪk'*) in one of the unscripted recordings.

³No other vowels have been noted in the thesis material. This exponent is a Fast-Tempo alternative to (long duration + nasality + the vowel *ɪ*) of section (i).

- b: (short duration + the vowels **ɿ, ʏ, ʊ, ɔ**),
(labiality + voicelessness + occlusion) (**p'**),
- m: (short duration + the vowels **ɿ, a, ʊ, ɔ**),
(labiality + nasality) (**m**).
- r: (long duration + the vowels **i, e, ɛ, a, ɔ, u, ø, y**).

E.g.

z: a. i. **ɿ ɛ a ɔ ɔ**

las-ka byad (**tʃhɛ**) dgos-kyi
[-yod]

'I have to work';

khruḍ (**trɔ**) dgos-kyi-red

'he must wash';

iɿ: **i: e: a: ɔ: u:**

sgo-yol phye (**tʃhe:**)

'draw the door-curtain'
(G. and R.);

zo (**sɔ:**)

'eat it';

b. **e: ɛ: ø: y:**

bka'-mol zhus (**ʃy:**) mchog-gi-
red-pa

'we must have a conversation,
must we not';

yag-po bzos (**sø:**)

'put it right' (G. and R.);

bzas (**sɛ:**) tshar-song

'he finished eating'.

g: i. **i: a: ɔ: u:**

bka'-mol zhus mchog (**tʃhɔ:**)

'we must have a conversation';

bzhugs (**ʃu:**) bzhugs-pa-yin-na

'used you to live (in Lhasa),

ii. ɿk'

[bsgrigs (druk') tshar-ni]

'when you have set it up'.

ŋ: ĩ: ǣ: ɔ: ǿ:

khang (khǣ:) tshar-ni'when you have finished
filling it';lhas-sa[r] nang-bzhin[-gvi]
bshad-lugs gsungs (sǿ:) thub-yag'for being able to speak a
dialect like the Lhasa';[da 'di gnang-rog gnang] (nǣ:)

'now please give him this';

d: i: e: ɛ: ø: y:

bod-chas 'di phar pis (pi:)

'discard their Tibetan things';

bshad (ʃɛ:) shes-kyi-yod-ma-red'I do not think they know
how to speak';bris (tri:) [gnang-pa'i]

'of what you have written';

n: i. ĩ: ɛ: ǿ: ʝ:

bstan (tɛ:) chog-gi-'dug

'he is allowed to show';

skyon (cǿ:) tsha-ra-yin-na'has he finished printing
(this news), or - - -';

ii. ɿ:n

shes (ʃɿ:n) dang

'do you know' [lit. 'know!'].

b: ɿp' ɿp' ɿp' ɿp'

chibs (tʃhɿp') chog-gi-'dug

'he is allowed to ride';

khong-la slob (lɿp')

'teach him';

gtubs (tɿp') chog-gi-'dug'he is allowed to slice it
up'.

m: ɿm am ʊm ɔm

nyams (ɲam) phyin-mi-yong-nga'i 'they would get degenerate,
would they not';

gzim (sim) bzhugs-[shag] '(the son) is sleeping'
(G. and R., altered)';

bskums (kɔm) 'draw it up'.

r: i: e: ɛ: ø: y: a: ɔ: u:

mjal (dʒɛ:) mchog-ga 'I must meet you';

bcar (tʃa:) thub-ma-song 'I could not come and see
you';

rngan-pa ster (te:) 'give a reward' (G. and R.).

The sole example, in the corpus of material used for the thesis, of (long duration + the vowel i) as an exponent of z is tʃhi:, byis, e.g. ja gra-sgrig byis (tʃhi:), 'get tea ready' (G. and R.); but it is probable that this exponent would also be exemplified in ra ma bzi (*si:), 'do not get drunk'.

The half-open front vowel of z (a.i) appears to be slightly closer (ɛ), than the half-open front vowels of z (b), d, and r (ɛ:), and of n (ɛ:).

Some of the features stated above as exponents or as contained in exponents are peculiar to one or other term of the Quality system, and could therefore also be cited as a phonetic criterion of that term; z (a.i);

g (ii); ŋ, except for **ĩ:**; n (i) except for **ĩ:**, and (ii); b; and m; but the remaining exponents are common to two or more terms, and therefore do not provide features that could be cited as phonetic criteria: **a:**, **ɔ:**, **u:** are common to z (a.ii), to g (i) when Clause-final, and to r when Clause-final; **e:**, **ɛ:**, **ø:**, **y:** are common to z (b), to d, and to r; **i:** is common to z (a, ii), to g (i), to d, and to r; **a:**, **ɔ:**, **u:** are common to g (i) and to r; **ĩ:** is common to ŋ and to n!

Further criteria, drawn from the disyllabic Piece (212131112), could be adduced in support of the eightfold distinction made above; but the validity of this distinction has from this point onwards been assumed.

212131112. Disyllabic Piece (Vb. † Part. Word;
Intraverbal Junction)

In the disyllabic Piece the exponents of each of the eight terms of the Quality system are sequences of features drawn from both the Syllables, the Verb and the Particle. The Particles concerned are the following Verbal Particles na, nas/ni, byas, bzhin, tsang, dus, ga/kag, ze/se, med/mad, yod, pa/ba/ga/nga/ra (Past),

gi(s)/gyi(s)/kvi(s), dgos/dgo/go, yong, song, byung,
shag/zhag, ma/mi, 'dug, myong/nyung, pa/ga/nga (Int.),
ga/ka (Fut. Spec. Int.), shig, do, a (Imp.), pas/gas/
ngas/ras, dang/da (Imp.), and all fourteen Nominalizing
 Particles: dus, (b)stang, ya(g), nyan/mkhan, rgyu,
pa/ba/ga/nga/ra, sa, rog, rtsis, ta, dwogs/dog/rdog,
mus, long, thabs.

The phonetic features of certain of these Particle Syllables are unaffected by the type of Quality Piece in which they are contained; but the initial consonant, or consonants (nd-, dwogs/dog/rdog), and vowels of eight others of them, on the contrary, vary. Particles of the latter type are given more prominence in statement here; in fact the exponents of z, g, ŋ, d, n, b, m, and r are stated first, at (1), for Pieces containing these eight, and subsequently, at (2) for Pieces containing the remaining Particle Syllables. Within (1), the eight Particle Syllables are grouped as follows: (a), pa/ba/ga/nga/ra (Nomzg.), (b), pa/ba/ga/nga/ra (Past), (c), pas/gas/ngas/ras (Int.), pa/ga/nga (Int.), (d), gi(s)/gyi(s)/kvi(s), (e), tsang, rtsis, (f), dog/dwogs/rdog.

Similarly, where a particular Verb has more than one type of vowel in accordance with the

type of Juncture Piece (2121314) or other prosodic type of Piece (e.g. Quantity) in which it is contained, each exponent is stated here, but is dealt with in greater detail in the sections concerned with Juncture and Quantity below.

1. a. Vb. + Nomzg. Part. (pa/ba/ga/nga/ra)

z: i. Short Piece (sP, 2121312): (long duration + the vowels **e**, **ɛ**, **a**, **ɔ**, **o**);

ii. sP: (short duration + the vowels **ɪ**, **ɛ**, **a**, **ɔ**, **ə**), (labiality + plosion + voice) (**b**), medium centrality (**ə**);¹

iii. Long Piece (lP, 2121312): (long duration + the vowels **e**, **ɛ**, **ə**, **y**), (labiality + plosion + voice) (**b**), medium centrality (**ə**);

e.g.

i. **e: ɛ: a: ɔ: o:**

bzo-ba (**sɔ:**) gnang-gi-yin-pa-'dra 'he will probably produce';

gdan-'dren zhus (**ʃo:**) gnang-song 'he invited him';²

¹For exponents (i) and (ii) see pp. 339 - 340.

²zhus is an attempt at a phonetic spelling of **ʃo:** (Vb.: zhu; Nomzg. Part.: ba).

ii. ɿbə ɛbə abe ɔbə ɔbə

yod zer-ba-la (sɛbə-)

'on my saying "we
have";

de-dra[s] ma byed-pa (tʃhɛbə)

'your not doing like
that' (Bell);

iii. e:bə ɛ:bə ɔ:bə y:bə

thugs-phan bzos-pa (sɔ:bə)

'his having benefited';

kho yag-po ma byas-pa (tʃhɛ:bə)
 dang

'on his not behaving
well';

g. i. (c.) (long duration + i, a, ɔ, u), (labiality +
voice + plosion) (b), medium centrality (e);

ii. (ft) (long duration + i, a, ɔ, u), (velarity +
voice + plosion) (g), open centrality (ɐ);

iii. (st) (short duration + ɿ, a, ɐ, ɔ), (velarity +
occlusion + voice) (g'), { (labiality + plosion
 (labiality + syllabicity
+ voice) (b), medium centrality (e);
+ voice) (ɸ);

e.g.

i. i:bə a:bə ɔ:bə u:bə

btsugs[-pa] (tsu:bə)
 gnang-nga-red zer-gyis

'"he established it"

bzhag-pa (ʃa:bə) gnang-song

'he put';

ii. i:ɣə a:ɣə ɔ:ɣə u:ɣə

bsgrigs-ka (dri:ɣə) gnang-song

'he fixed it up';

bzhag-ga (ʃa:ɣə) gnang-nas

'he puts' (Bell,
 altered);

iii. ɿg'be ag'be vg'be og'be; og'p, etc.

bsgrigs-pa (drɿg'be) gnang-dus 'when you set up';

btsugs-pa (tsog'p) gnang 'he established';

ŋ: i. (c.) (short duration + ɿ, a, v, ɔ), (velarity + nasality) (ŋ), (labiality + voice + plosion) (b), medium centrality (e);

(ft) (short duration + ɿ, a, v, ɔ), (velarity + nasality) (ŋ), open centrality (ɤ)

ii. (ft) (short duration + a), (velarity + nasality + syllabicity) (ŋ̥);¹

iii. (ft) (short duration + nasality + ɔ),¹ (nasality + open centrality) (ẽ);

e.g.

i. (c.) ɿŋbe aŋbe vŋbe ɔŋbe

btang-ba (taŋbe) gnang-song 'he sent';

bting-ba (tiŋbe) gnang-song 'he spread';

(ft) ɿŋɛ aŋɛ vŋɛ ɔŋɛ

skad btang-nga (taŋɛ) gnang-btang 'the way they shout';

gsungs-rnams gnang-nga (naŋɛ) 'the way he sings
namthar';

ii. bzo gnang-nga (naŋ̥) de 'the fact that he makes';

¹There are no examples of other vowels in the thesis material.

iii. ɜ:ɛ

dar-khyabs [yong-ba] (jɜ:ɛ)'the coming of an
expansion';

d: (long duration + i, e, ɛ, ø, y), (labiality + plosion)

(b), medium centrality (ə);

e.g. i:bə e:bə ɛ:bə ø:bə y:bə

khong phebs-pa (phe:bə) dang

'on his coming';

rin ma sprad-pa-la (trɛ:bə-)'without paying for them'
(Bell);bris-pa (tri:bə) gnang-song

'he wrote';

n: (short duration + ɪ, ɛ, ø, y), (labiality + nasality) (m),

(labiality + plosion) (b), medium centrality (ə);

e.g. ɪmbə ɛmbə ømbə ymbə

methun-pa (thymbə)

'to match';

zla-rnying gsar-pa skyon-pa
(cəmbə) cig'the one newly built last
year';gang shes-pa (ʃəmbə) de

'what we do know';

b: i. (short duration + ɪ, ʌ, ʊ, ɔ), (labiality + plosion)

(b), medium centrality (ə);

ii. (ft) (short duration + ɔ),¹ (labiality + friction)

(β), medium centrality (ə);

¹No other vowels have been observed in the thesis material.

e.g.

i. ɿbe ʁbe ʋbe ɔbe

rgyab-pa (ɿʁbe)

'shutting';

klog thugs-pa (thɔbe)

'being able to read';

ii. ɔβe

zhabs-phyi zhu thub-pa (thɔβe)

'being able to work for';

m: (short duration + ɿ, a, ʋ, ɔ), (labiality + nasality) (m),
 (labiality + plosion) (b), medium centrality (e);

e.g.

ɿmbe ambe ʋmbe ɔmbe

bod-pa'i snga-srol bzang-po ma
nyams-pa (ɿambe)'good Tibetan traditions
 not declining';zin-pa (sumbe) gnang-song

'he caught';

bskums-pa (kɔmbe) gnang-song

'he drew in';

r: i. (long duration + i, e, ε, ø, y, a, ɔ, u), (labiality
 + voice + plosion) (b), medium centrality (e);

ii. (ft) (long duration + ε),¹ (labiality + voice +
 friction) (β), medium centrality (e);

iii. (ft) (short duration + ɿ, ε, ø, y, a, ʋ, ɔ),
 (apicality + voice + friction) (r), open centrality (ʁ);

iv. (ft) (short duration + ɔ),¹ (apicality + voice +
 friction + syllabicity) (r̥);

¹There are no examples of other vowels in the thesis material.

e.g.

i. i:be e:be ɛ:be ø:be y:be a:be ɔ:be u:be

'phur-ba (phi:be) gnang-song 'it flew';bzhar-ba (ʃa:be) gnang-song 'he shaved';

ii. ɛ:βə

[mjal-ba] (dʒɛ:βə) byas 'having met';

iii. ʊɾ ɛɾ ɛɾ ɛɾ ɾɾ ɾɾ ɾɾ ɾɾ

tsha-ra (tsharɾ) gnang 'gro'i-yod -pa-no' 'is he about to finish it';dbul-ra (ba) (byɾɾ) gnang-nas 'offer' (Bell)

iv. ɔɾ

ma 'gyur-ra (ɟɔɾ) 'not changing'.b. Verb + Past Particle (pa/ba/ga/nga/ra)

z:

- i. (sP) (short duration + ɿ, ɛ, a, ɔ, ɔ), } (labiality +
 ii. (lP) (long duration + e, ɛ, ø, y), } plosion + voice) (b)
 medium centrality (e)

e.g.

i. ɿbe ɛbe abe ɔbe ɔbe

phal-cher bzo-ba-red (sɔbe-) 'they generally make';phye-ba-red (tʃhɛbe-) 'he opened';

ii. e:bə ɛ:bə ø:bə y:bə

yong-rəvu byas-pa-yin (tʃhɛ:bə-)

'I had to come';

brkus-pa-red (ky:bə-)

'he stole';

g: i. }
 ii. } as for (a) above;
 iii. }

e.g.

i. i:bə a:bə ɔ:bə u:bə

gzigs-pa-red (si:bə-)

'he saw';

lhas-sa rang-la bzhugs bzhugs-pa-
yin-na (ʃu:bə-)

'were you living in Lhasa
 itself, or - - -';

ii. i:ɣə a:ɣə ɔ:ɣə u:ɣə

bzhugs bzhugs-pa-red (ʃu:ɣə-)

'he used to live';

bzhugs-gdan 'jags 'jags-pa-yin
 (dʒa:ɣə-)

'she was staying';

iii. ɭg'bə ag'bə vɣ'bə ɔg'bə

gzigs-pa-red (sɭg'bə-)

'he saw';

klog-pa-red (ɭvɣ'bə-)

'he read';

ŋ: i. as for (a) ŋ (i) above;

ii. (ft) (short duration + ɭ, a),¹ (labiality + nasality) (m)
 (labiality + plosion) (b), medium centrality (ə);

e.g.

i. (c.) ɯŋbə aŋbə vŋbə ɔŋbə

¹No other vowels have been noted in the thesis material.

ga-bar slab-pa [gnang-ba]-yin- 'where did you learn';
[na] (naŋbe-)

yong-ba-red (jvŋbe-) 'he came';

(ft) ɿŋe aŋe vŋe oŋe

gsungs-nga-red (svŋe-) 'they said'

yun ring-'thung ga-ga-tsam gnang 'about how long did you
-nga-yin-na (naŋe-) (work)';

ii, ɿmbe ambe

btang-ba-red (tambe-) 'he sent';

gdan gtings-pa-red (tɿmbe-) 'he spread the carpet';

d: as for (a) d above;

e.g.

i:be e:be ɛ:be ø:be y:be

bris-pa-red (tri:be-) 'he wrote';

rdo-rje gling-la phebs-pa-red 'he came to Darjeeling';
(phe:be-)

lon-don-la bsdad-pa-yin (dɛ:be-) 'I stayed in London';

n: as for (a) n above;

e.g.

ɿmbe ɛmbe ømbe ymbe y:be

ga-dus thon-pa-yin-na (thəmbe-) 'when did it start';

mi-lus - - - len-pa-red-pa 'I took on human shape,
(lɛmbe-) did I not';

mthun-pa-red (thymbe-) 'they matched';

b: as for (a) b (i) above;

e.g.

ɿbe ʁbe vbe ɔbe

hrob-pa-red (*ɿbe-*)

[?] 'it was gravelly';

thub-pa-mi-'dug (*thɔbe-*)

'he would not be able to';

bod-skad slab-pa-red (*ɿbe-*)

'he learnt Tibetan'.

m: as for (a) m above;

e.g.

ɿmbe ambe vmbe ɔmbe

gtums-pa-red (*tɔmbe-*)

'he wrapped it up';

zin-pa-red (*sɿmbe-*)

'he caught';

sha bskams-pa-red (*kambə-*)

'he dried meat'.

r: i. as for (a) r (i) above;

ii. " " (a) r (iii) above;

i. *i:be e:be ɛ:be ø:be y:be a:be ɔ:be u:be*

bskol-ba-red (*kø:be-*)

'he boiled';

gtsir-ba-red (*tsi:be-*)

'he pressed';

ii. *ɿre ɛre øre yre are vre ɔre*

skyon tshar-ra-yin-na (*tsharv-*)

'did he finish printing
- - -, or - - -';

ga-re [zer-ba-yin-na] (*sɛre-*)

'what is that called, I
wonder'.¹

¹ For ¹ Examples such as *tharbere* (dar-ba-red) are treated as spelling pronunciations.

c. Verb + Interrogative Particle (i. pas/gas/ngas/ras;
ii. pa/ga/nga¹)

- z: (lP) (long duration + e, ε, ø, y), (labiality + plosion + voice) (b), (i) (long duration + e/ε), or, (ii) (long duration + backness) (a:);²
- g: (long duration + i, a, ɔ, u), (labiality + voice + plosion) (b), (i) (long duration + e/ε), or, (ii), (backness + long duration) (a:);
- ŋ: (short duration + (l, a, v, ɔ), (velarity + nasality) (ŋ), (i), (long duration + e/ε), or, (ii), (short duration + frontness) (a);
- d: (long duration + i, e, ε, ø, y), (labiality + voice + plosion) (b), (i) (long duration + e/ε), or, (ii), (long duration + backness) (a:);
- n: (short duration + l, ε, ø, y), (labiality + nasality) (m), (labiality + plosion) (b), (i), (long duration + e/ε), or, (ii), (long duration + backness) (a:);
- b: (short duration + l, x, v, ɔ), (labiality + plosion) (b), (i) (long duration + e/ε), or, (ii), (long duration + backness) (a:);

¹No form ra has been noted in the thesis material.

²No Short-Piece (sP) forms have been noted in the material.

- m: (short duration + **ɿ**, **a**, **ʊ**, **ɔ**), (labiality + nasality) (**m**), (labiality + plosion + voice) (**b**), (long duration + **e/ɛ**), or, (iɪ), (long duration + backness) (**a:**);
- r: (short duration + **ɿ**, **ɛ**, **ø**, **y**, **a**, **ʊ**, **ɔ**), (apicality + voice + friction) (**r**), (long duration + **e/ɛ**); e.g.

z: **e:bɛ:/a: ɛ:bɛ:/a: ø:bɛ:/a: y:bɛ:/a:**

ga-re'i don-la cag-ga yag-po ma 'why did you not take good
byas-pa (**tʃhɛ:ba:**) care' (G. and R., altered);

gsol-ja bzos-pas (**sø:bɛ:**) 'did you make tea';

bag-leb ga-tshod bzos-pa (**sø:ba:**) 'how many loaves have you made' (G. and R.);

g: **i:bɛ:/a: a:bɛ:/a: ɔ:bɛ:/a: u:bɛ:/a:**

ga-par bzhugs-gdan 'jag-pa
(**dʒa:ba:**) 'where did you stay';

rgyal-rtse-la bzhugs-pas (**ju:bɛ:**) 'did you stay in Gyantse';

ga-par bzhag-pa (**ʃa:ba:**) 'where did you put it';

ŋ: **ɿŋɛ:/a aŋɛ:/a ʊŋɛ:/a ɔŋɛ:/a**

yang ga-'dras gnang-nga (**naŋa**) 'or what did he do';

rkang-thang-la yong-ngas (**jʊŋɛ:**) 'did you come on foot';

yod-pa gnang-ngas (**naŋɛ:**) 'have you got' (Bell);

d: **i:bɛ:/a: e:bɛ:/a: ɛ:bɛ:/a: ø:bɛ:/a: y:bɛ:/a:**

Connaught Hall-la bsdad-pas
(**dɛ:bɛ:**) 'did you stay at Connaught Hall';

rgyal-rtse-la phebs-pas (phe:be:) 'did you come to Gyantse';

ga-nas phebs-pa (phe:ba:) 'where have you come from';

n: ɿmbe:/a: ɛmbe:/a: ɔmbe:/a: ymbe:/a:

ga-pa phyin-pa (tʃhumba:) 'where did you go';

b: ɿbe:/a: ɣbe:/a: vbe:/a: ɔbe:/a:

ge rgyab-pas (ɣɣbe:) 'have you swept' (Bell);

m: ɿmbe:/a: ambe:/a: vmbɛ:/a: ɔmbe:/a:

thag-pas bsdams-pas (dambe:) 'did you tie it with rope';

r: ɿre: ɛre: ɔre: yre: are: vɾe: ɔre:¹

rtswa-chag yag-po ster-ras (tere:) 'did you give plenty of
grass and grain' (G. and
R., altered);

chu skol-ras (kɛre:) 'did you boil the water';

d. Vb. + Non-Past Particle (gi/gyi/kyi)

z: (short duration + ɿ, ʌ, ɔ), (i), (velarity + plosion + voice) (g), the vowels ɿ, ɛ, ɣ; (ii), (ft), (velarity + friction + voice) (ɣ), the vowels ɿ, ɛ, ɣ; or (iii), (ft), (velarity + occlusion/friction + voice + syllabicity) (ḡ/ḡ);

g: (long duration + i, ʌ, o, u), (i), (velarity + voice + plosion) (g), vowel (ɿ/ɛ/ɣ); or, (ii), (ft), (velarity + voice + friction + syllabicity) (ḡ);

¹There are no examples of the Special-Interrogative Particle pa/ga/nga/ra for this type of Piece in the thesis material.

- ŋ: (short duration + **ɿ**, **ʌ**, **ɔ**), (velarity + nasality) (**ŋ**),
 (velarity + voice + plosion) (**g**), vowel (**ɿ**/**e**/**y**);
- d: (long duration + **i**, **e**, **ə**, **y**), (velarity + voice +
 plosion) (**g**), vowel (**ɿ**/**e**/**y**);
- n: (short duration + **ɿ**, **ɛ**, **ə**, **y**), (velarity + nasality) (**ŋ**),
 (velarity + voice + plosion) (**g**), vowel (**ɿ**/**e**/**y**);
- b: i. (short duration + **ɿ**, **ɤ**, **ɔ**, **ɔ**), (labiality +
 occlusion + voice) (**b**), (velarity + plosion + voice)
 ((**g**), vowel (**ɿ**/**e**/**y**);
- ii. (~~w~~ Labiality Piece, 21213212, only) (ft), (long
 duration + **u**, **o**), (velarity + voice + plosion) (**g**),
 vowel (**y**);
- m: i. (short duration + **ɿ**, **ʌ**, **ɔ**), (labiality + nasality)
 (**m**), (velarity + plosion + voice) (**g**), vowel (**ɿ**/**e**/**y**);
- ii. (ft), (short duration + **ʌ**),¹ (velarity + nasality)
 (**ŋ**), (velarity + plosion + voice) (**g**), vowel (**ɿ**);
- r: (long duration + **i**, **e**, **ə**, **y**, **ʌ**, **o**, **u**), (velarity +
 plosion + voice) (**g**), vowel (**ɿ**/**e**/**y**);²
- e.g.

¹There are no examples of other vowels in the thesis material.

²Examples such as **ngjörgundu:**, 'gyur-gyi-'dug, are treated as spelling pronunciations.

z: i. ʔgi ʌgə ɔgy, etc.¹

za-gi-man (sʌgi-)

'I will not eat';

las-ka byed-kyi-yod (tʃhʌgi-)

'I work';

ii. ʔgi ʌgə ɔgy, etc.

ga-re byed-kyi-yod-pa (tʃhʌgi-)

'what are you doing';

iii. ʔg/ʌg/ʌg/ʌg ɔg/ʌg

sprad dgos-kyi-mad [gro] (gɔg-)

'they have not got to give, I suppose';

'di-'dras zer-gyi-'dug (sʌg-)

'that is what they say';

g: i. i:gi ʌ:gə o:gy u:gy, etc.

byugs-kyi-yod-na (tʃhu:gy-)

'do you apply it, or
- - -';

tshogs-kyi-ma-red (tʃho:gi-)

'they will not assemble';

ii. ʌ:g

ga-bar bzhuks-[gdan 'jag-gi-]yod-na
(dʒʌ:g-)

'where does he stay';

ŋ: ʔgi ʌgə ɔgy, etc.

thugs phams-po gnang-gi (nʌgi-)

'he is sorry';

gting-gi-'dug (tʌgi-)

'he spreads'

mi gcig-ka ra-po yong-gi-'dug
(jɔgy-)

'it comes out sort-of
different';

¹Except in a careful style the exponent of the vowel of the Syllable gi/gvi/kyi varies in association with differences in the labial features of the Verb Syllable (lip-rounding, lip-spreading, etc.; Labialization system. 2121321). The various exponents are not given in full here, but are indicated by 'etc.'.

d: i:gu e:ge y:gy, etc.

ga-tshad thad-kvi-yod-na (the:ge-) 'how long is it since';

bris-gis bris-gis (tri:gu)
byas-na[s] 'after writing and writing';

['dir] sleb-kvi[-yod-pa-'gra]
(le:gu-) 'it will probably reach here';

n: ɯngu ɛnge ɔngu yngy, etc.

shes-kvi-med (ɬɯngu-) 'I do not know';

nyan-gvi-mi-'dug (ɲɛngu-) 'he will not listen';

'bu 'thon-gvi-'dug-gas (thyngu-) 'Have you got worms'
(G. and R.);

b: i. ɪb'gu ɣb'ge ɒb'gu ɔb'gy, etc.

gsed-kvi-'dug (sɪb'gu-) 'he sorts (wool)';

ga-'dras-se slab-kvi-[red] (lɤb'ge-) 'how will they teach you';

ii. o:gy u:gy

gsob-kvi-'dug (so:gy-) 'it goes soft';

gtub-kvi-'dug (tu:gy-) 'he slices';

m: i. ɯmgu ɛmge ɔmgy, etc.

tshems-kvi-'dug (tshɯmgu-) 'he sews';

bsam-gvi[s] (sɛmgu) 'I think';

ii. ɛngu

bsam-gvi-'dug (sɛngu-) 'he thinks';

r: i:gu e:ge ɔ:gu y:gy ɤ:ge o:gy u:gy, etc.

ster-gvi-yin (te:ge-) 'I will give';

phul-gvi-'dug (phy:gu-) 'he gives';

bcar-gvi-yin (tʃɤ:ge-) 'I will visit'.

e. Vb. + Non-Sentence-final-Clause Particle (tsang)

" + Nominalizing Particle (rtsis)

z: i. (lP), (tsang), (long duration + e, ε, ø, y),

affrication (dz);

ii. (sP), (tsang, rtsis), (short duration + ɿ, ε, a, ʌ,

ɔ, ɤ), affrication (dz);

g: (long duration + i, a, ʌ, ɔ, o, u), affrication (dz);

ŋ: (short duration + ɿ, a, ʌ, ɤ, ɤ), (velarity + nasality)
(ŋ), friction (z);

d: i. (long duration + i, e, ε, ø, y), affrication (dz);

ii. (ft), (long duration + i, e, ø, y), friction (z);

n: (short duration + ɿ, ε, ø, y), (nasality + alveolarity)
(n), friction (z);

b: (short duration + ɿ, ʏ, ɤ, ɤ), (labiality + occlusion)
(b), friction (z);

m: (short duration + ɿ, a, ʌ, ɤ, ɤ), (nasality + labiality)
(m), friction (z);

r: (long duration + i, e, ε, ø, y, a, ʌ, ɔ, o, u), affrication
(dz);

e.g.

z: i. e:dz ε:dz ø:dz y:dz

byas-tsang (tʃhε:dzä:)

'therefore'

'khrud-tsang (try:dzä:)

'since he washes';

ii. i dz e dz a dz a dz o dz o dz

bzo-rtsis (sodzi:) ra-po yod

'I am about to make';

shi-tsang (ʃidzã:)

'since it dies';

g: i:dz a:dz A:dz o:dz o:dz u:dz

mtho drag-tsang (tra:dzã:)

'since (her age) is
too great';

b: bzhugs-tsang (ʃu:dzã:)

'since he stays';

ŋ: ʊŋz aŋz Aŋz uŋz oŋz

rtogs ma gnang-tsang (naŋzã:)

'since they do not
understand';

'thung-tsang (thəŋzã:)

'since he drinks';

d: i:dz e:dz ɛ:dz ø:dz y:dz

bris-tsang (tri:dzã:)

'since he writes';

n: ʊnz ɛnz ønz ynz

mkhyen-tsang (kʃɛnzã:)

'since you know';

shes-tsang (ʃɛnzã:)

'since he knows';

b: ʊbz xbz vɒbz ɔbz

byed ma thub-tsang (thəɒbzã:)

'since you cannot do it';

slab-tsang (lɒbzã:)

'since he teaches';

m: ʊmz amz ʌmz ɒmz ɔmz

zin-tsang (sʊmzã:)

'since he catches';

bsdams-tsang (damzã:)

'since he tries';

r: i:dz e:dz ɛ:dz ø:dz y:dz a:dz A:dz o:dz o:dz u:dz

m: ma+ster-tsang (te:dzã:)

'since he does not give';

phul-tsang (phy:dzã:)

'since he offers';

f. Vb. + Nominalizing Particle (dog, rdog, dwogs)

z: (short duration + ɔ),¹ (dentality + nasality) (n),
(dentality + plosion) (d);

g: }
ŋ: } No examples in the material.

d: (short duration + ə),¹ (dentality + nasality) (n),
(dentality + plosion) (d);

n: }
b: }
m: } No examples in the material.
r: }

e.g.

z: and

'gro-rdog (drɔndɔ:) kha-po red

'I may perhaps have
to go' (G. and R.);

d: end

mchod-dwogs (tʃhɛndɔ:) kha-po red

'perhaps he drinks'.

2. further Pieces (p. 314)

Apart from the above special cases, the exponents of
z, g, ŋ, etc. are the following:

z: i. sP: (short duration + ɪ, ɛ, a, ɔ, ə), consonant
(C), vowel (V);²

¹No other vowels have been noted in the thesis material.

²C and V symbolize, respectively, consonantal and vocalic types of articulation, with non-syllabic vowels symbolized, for this purpose, by C.

ii. 1P: (long duration + i, e, ε, ø, y), consonant (C), vowel (V);

g: i. (st) (short duration + ʌ, a, v, ω), (velarity + $\left\{ \begin{array}{l} \text{friction} \\ \text{occlusion} \\ + \text{voice} / \end{array} \right.$ + voice) (ɣ),
voicelessness) (g k), $\left. \vphantom{\begin{array}{l} \text{friction} \\ \text{occlusion} \\ + \text{voice} / \end{array}} \right\} (\text{friction} + \text{voicelessness}) (\text{s f});$

ii. (st) (short duration + ʌ),¹ (velarity + plosion + voice) (g), semi-vowel/nasality (j n);

iii. (st) (short duration + ʌ, ω),¹ (velarity + nasality) (ŋ), nasality (n);²

iv. (long duration + i, a/ʌ, o/o, u), consonant (C), vowel (V);

ŋ: i. (long duration + nasality + ʌ, a/ʌ, o, ω), affrication/nasality/friction/laterality/semi-vowel/glottality (dʒ m n p s f r l j ɥ ʔ), vowel (V);

ii. (short duration + ʌ, a/ʌ, v, ω), (nasality + velarity) (ŋ), plosion (d g);

iii. (ft) (short duration + a, v, ω),¹ (nasality + palatality) (ɲ), affrication (dʒ);

dentality) (n), plosion (d);

d: (long duration + i, e, ε, ø, y), consonant (C), vowel (V);

¹No other vowels have been observed in the thesis material.
²Exponent (iii) is probably, and exponents (i) and (ii) are possibly, based on spelling pronunciations. If so, they should be withdrawn; and the present exponent (iv) would then stand as the sole g exponent in section (2).

- n: i. (long duration + nasality + $\text{ɪ}, \text{ɛ}, \text{ə}, \text{y}$),
affrication/nasality/friction/laterality/semi-vowel/
glottality ($\text{dʒ m n ɲ s ʃ r l j ɥ}^?$), vowel (V);
ii. (short duration + $\text{ɪ}, \text{ɛ}, \text{ə}, \text{y}$), (nasality +
 $\left\{ \begin{array}{l} \text{velarity) (ɲ), plosion (g);} \\ \text{dentality) (n), plosion (d);} \\ \text{(st) palatality) (ɲ), affrication (dʒ);} \\ \text{alveolarity (n), affrication (dr);} \end{array} \right.$
- b: i. (ft) (short duration + $\text{ɪ}, \text{ɛ}, \text{ə}, \text{y}$), (labiality +
nasality) (m), nasality (m n ɲ);
ii. (short duration + $\text{ɪ}, \text{ɛ}, \text{ə}, \text{y}$), (labiality +
occlusion + voice) (b'), nasality (m, n, ɲ)/plosion
(d, g)/affrication
 $(\text{dʒ})/(\text{friction} + \left\{ \begin{array}{l} \text{voice) (r)} \\ \text{voicelessness) (s, ʃ)} \end{array} \right\} / \text{semi-vowel (j)};$
iii. (st) (short duration + $\text{ɪ}, \text{ɛ}, \text{ə}, \text{y}$), (labiality +
occlusion + voicelessness) (p'), (voicelessness + friction)
(s ʃ);
iv. (ft) (short duration + ɛ),¹ (labiality + voice
+ friction) (β), (friction + velarity + voice) (γ);
m: (short duration + $\text{ɪ}, \text{a/ʌ}, \text{ə}, \text{y}$), (labiality + nasality)
(m), consonant (C);

¹ No other vowels have been noted in the thesis material.

r: (long duration + i, e, ε, ø, y, a/ʌ, ɔ/o, u),
consonant (C), vowel (V);

e.g.

z: i. ɿCV εCV aCV ʌCV ɔCV ɔCV

'gro-ba'i (drɔwε:) du

'the time for going'
(Bell);

ra bzi-nas (sɪnε:)

'having got drunk';

ii. e:CV ε:CV ø:CV y:CV

skyes-byas (ce:dʒe)

'having originated';

byas-na (tʃhε:nə)

'in that case';

g: i. ɿʃs/ʃ aʃs/ʃ vʃs/ʃ; ɿk's/ʃ, etc.

bsgrigs-shag (drɿʃa)

'it has been got ready';

bsgrigs-sa (drɿk'sə) de

'this place where it joins'

ii. ɿgʃ/n

'grigs-yong (drɿgʃɿ)

'it would be all right';

chibs-rags bsgrigs-nas (drɿgne)

'in single file' (Bell);

iii. ɿgn ɔgn

glog 'khvugs-nas (kʃɔgne)

'when lightning flashes';

iv. i:CV a:CV ʌ:CV ɔ:CV o:CV u:CV

klog-nyan-'tsho (lɔ:nɛ:zɔ)

'people who read';

chag-'dug (tʃha:du)

'it is broken' (G. and R.);

ŋ: i. $\tilde{i}:\dot{d}V \tilde{a}:\dot{d}V \tilde{ɔ}:\dot{d}V \tilde{ɔ}:\dot{d}V; \tilde{i}:NV, \dots$ etc.¹

mthong-byung ($\text{th}\tilde{ɔ}:\dot{d}V$)

'I saw';

phyag-las gnang-nyan ($\text{n}\tilde{a}:\text{p}\tilde{ɛ}:$)

'someone who works';

ii. ɪP aP ʌP ʊP ɔP^2

nyi-ma ring-dus ($\text{r}\tilde{ɪ}\text{ŋd}\tilde{y}:$)

'when the days get long';

chibs-bsgyur gnang-dgos ($\text{n}\tilde{a}\text{ŋg}\tilde{o}$)

'good bye';

iii. $\text{aPdz}; \text{pnd and}$

chibs-bsgyur gnang-byung-ngas
($\text{n}\tilde{a}\text{Pdz}\tilde{a}\text{ŋ}-$)

'did he come here to you';

gsung-dus ($\text{s}\tilde{a}\text{ŋd}\tilde{y}:$) gang-nas

'when we speak';

d: $\text{i:CV e:CV ɛ:CV ɔ:CV y:CV}$

thag mchod-ma-song ($\text{tʃh}\tilde{o}:\text{mas}\tilde{ɔ}$)

'it was not decided';

lco-ba (lci-ba) 'bus- ('bu-)yong
($\text{p}\tilde{h}\tilde{y}:\text{y}\tilde{ɔ}$)

'cattle-dung is mostly
used' (Bell);

ga-le thad-go ($\text{th}\tilde{e}:\text{g}\tilde{o}$)

'good bye';

n: i. $\tilde{i}:NV \tilde{ɛ}:NV \tilde{ɔ}:NV \tilde{y}:NV; \dots$ etc.³

skyon-a-yod ($\text{kj}\tilde{ɔ}:\text{ʔa}-$)

'we have not, I suppose,
printed';

chu-tshod gnyis-pa-la phyin-ni
($\text{tʃh}\tilde{i}:\text{n}\tilde{ɪ}$)

'going at two o'clock';

¹ N symbolizes (nasality + oral occlusion) (m n p); the alternative features to affrication and (nasality + oral occlusion), i.e. friction (s ʃ r), laterality (l), semi-vowel (j), glottality (ʔ), are indicated by 'etc.'.

² P symbolizes plosion (b d g).

³ For N, and 'etc', see Note 1 above.

ii. ing eng ong yng; ind, etc.

skyon-rgyu (cyngja) 'to be printed';

mkhyen-byung-ngas (kjendzang-) 'did you know';

b: i. imN ymN omN amN

khebs-na (khymne) 'if it should spread';

btsugs thugs-na (thamne) 'if he can establish'

iii. ibN ybN obN abN; ibP, etc.

ga-tshad rgyag-na'i (yrbne) 'however many you do print';

slab-roq (lybro:) gnang 'please teach';

iii. lps/l xps/l vps/l wps/l

lab-shig (lxpfu) 'tell him';

hrob-song (rvpsö) '[?] 'it got gravelly';

iv. öβχ

ga-re lab-ka (lxβχa) 'what am I to say';

m: umC amC omC vumC amC

zin-mkhan (sumpε:) 'the man who catches'
(Bell);

skom-sa'i/dkon-sa'i (kdmse:)¹ 'a place where there is
a shortage too';

bsam-byung (samdzö) 'I thought';

¹The spelling dkon-sa'i is that of the rough copy of the transcription made from the recording; in the fair copy the phonetic spelling skom-sa'i has been substituted for it (cf. dkon-po (kombö), 'rare').

r: i:CV e:CV ε:CV ø:CV y:CV a:CV ʌ:CV ɔ:CV o:CV u:CV

'byor-med-pa-no (dʒɔ:me:-)

'have you not received';

[bsgrigs] tshar-nas (tsha:ne)

'when you have finished
setting it up';

'khyer-byas (chi:dʒe)

'having taken'.

A number of examples of the Quality Piece have been excluded on the grounds either that they are not LT, or that they are spelling pronunciations. Some of these examples, if included, would require changes to be made in the exponency of the b and the m Piece.

(Short duration + ʌ, ɛ, ɔ, ɔ̃, but not ε) appears as part of the exponents of b; ε has nevertheless been noted in Pieces that would otherwise be identifiable as b under several b- Piece criteria: lteb (dɛp) chog-gi-'dug, 'he is allowed to fold it'; 'deb-kyi-'dug (dɛbɣɪndu:), 'he sows'; 'geb-pa (gʲɛbɐ), 'to cover', and 'geb (gʲɛp) gnang-song, 'he covered'. The corresponding LT forms are ltab-rtsig rgyab-pa, 'to fold'; btab-kyi-'dug (tɛbɣɪdu:), 'he sows'; bkaab-pa (kɛbɐ), 'to cover'; bkaab (kɛp) gnang-song, 'he covered'; ε is not exemplified in any of these, and is excluded from the exponents of the b Piece.

Somewhat similarly, (short duration + ʌ, a, ʌ, ɔ, ɔ̃, but not ε) appears in exponents of m. R. was, however,

willing to accept the forms **nzembere** and **tshembere** as infrequent alternatives to **zumbere**, 'dzems-pa-red, 'he refused', and **tshumbere**, tshems-pa-red, 'he sewed'; but, since there are no other examples of **ɛ** in an m Piece apart from these two doubtful forms, **nzembere** and **tshembere** are treated as spelling pronunciations, and excluded from LT.¹

The exponents of the terms g, ŋ, d, n, b, m, and r are the same for Pieces of the grammatical type Vb. + Nomzg. Part. (pa/ba/ga/nga/ra) (l. a) as they are for Pieces of the type Vb. + Past Part. (pa/ba/ga/nga/ra) (l. b), and so too are the exponents of z in the Long Piece (l. a. iii and b. ii). In the Short Piece the exponents of z given at (l. a. ii) are also the same as those given at (l. b. i); but those given at (l. a. i) have no correspondingly identical exponents at section (b); and it is for this reason that it is necessary to make separate statements of exponents for these two grammatical types of Piece (a, b).

The z exponents given at (l. a. i) differ

¹ **zumbere** and **tshumbere** can be shown to be m-Piece, and not n-Piece, examples from the lexically comparable forms **zumgɪdu:**, 'dzem-gyi-'dug, 'he refuses', and **tshumgɪdu:**, tshem-gyi-'dug, 'he sews' (cf. m exponent l. d. above).

considerably from all the other exponents in (a), including other z exponents (l. a. ii, iii), in that this type of Piece, although treated as phonologically disyllabic, is phonetically monosyllabic, and has only one vowel, in the features of which (e:, ɛ:, a:, ɔ:, o:) the exponents of the appropriate terms of both Quality system (z) and Juncture system (q, p. 525), and the e term of the Labialization system statable for the Particle Syllable (ba), are to be sought. All the other exponents are drawn from phonetically disyllabic Pieces, and, with few exceptions (g (iii): btsugs-pa, tsəgɸ; ŋ (ii): gnang-nga, naŋ; r (iv): 'gyur-ra, (ɟər), contain two vowels: e.g. z (a. ii): byed-pa (tʃhɛbe), 'to do'; z (a. iii): zhus-pa (ʃy:be), 'to have requested'; with g (a. i): btsugs-pa (tsu:be), 'to establish'; cf. z (a. i): shi-ba (ʃe:), 'to die', phye-ba (tʃhɛ:), 'to open', zhu-ba (ʃo:), 'to request'.

The two Short-Piece sets of exponents of the z Piece (l. a. i and ii) are not in free variation: the latter exponents (ii) are obligatory for Pieces in which certain Verbs are exemplified; for Pieces containing other Verb Syllables, they were described by R. as rare alternatives to corresponding exponents given at (i). These rare alternatives include tʃhɛbe, səbe, and ʃəbe, beside the more common tʃhɛ:, phye-ba,

'to open', so:, bzo-ba, 'to make', and fo:, zhu-ba, 'to request', in all of which one of the vowel letters (i, e, a, o, u) is final in the Verb Syllable, and b is therefore initial in the Particle Syllable. One of the rare alternatives, though with the spelling 'phyes-pa, not phye-ba, has, even so, been noted in a text transcribed from an unscripted recording: kha 'phyes-pa (tʃhɛbɛ) gnang, 'he opened'.

Pieces in which only the *z* exponents given at (1. a. ii) have been observed include all those in which the Verbs byed, zer, and khruḍ are exemplified, e.g. ma byed-pa (tʃhɛbɛ), 'not to do'; zer-ba-la (sɛbɛ-), 'on saying'; khruḍ-pa (tɾəbɛ) gnang-song, 'he washed'. In two of these examples d is final in the Verb syllable and p is therefore initial in the Particle syllable; it may well be that these orthographic features correlate with the exponents given in (a. ii) while the orthographic features mentioned in the preceding paragraph correlate with the exponents given in (a. i).

In all types of Short-Piece *z* Piece (*zs P*) other than the Vb. + Nomzg.-Part. (pa/ba/ga/nga/ra) there is no difference in exponency between Pieces containing e.g. the Verb Syllables byed and khruḍ, on the one hand,

and Pieces containing e.g. the Verb Syllables phye, 'open', and zhu, 'request' (zer has several alternative r-Piece forms); e.g.

<u>khru</u> d- <u>kyi</u> -'dug (<u>tr</u> <u>o</u> <u>q</u> i-)	'he washes';
<u>zhu</u> - <u>gi</u> -'dug (<u>so</u> <u>q</u> i-)	'he asks for';
<u>las</u> - <u>ka</u> <u>byed</u> (<u>tsh</u> <u>e</u>) <u>dgos</u> - <u>kyi</u> [-yod]	'I have to work';
<u>phye</u> (<u>tsh</u> <u>e</u>) <u>chog</u> - <u>gi</u> -'dug	'he is allowed to open';
<u>zer</u> - <u>na</u> (<u>se</u> <u>ne</u>)	'supposing that';
<u>phye</u> - <u>na</u> (<u>tsh</u> <u>e</u> <u>ne</u>)	'if you open'.

There are two exceptions to z exponent (l. b. i):
in Pieces of the type Vb. + Vbl. Part. (pa/ba/ga/nga/ra)
in which the Verb is exemplified by 'gro (Auxiliary) or by dgos (with phonetic spellings dgo and go), this exponent is not (short duration + o), (labiality + voice + plosion) (b), medium centrality (e), e.g. *drobe-, *gobe-, but (long duration + o), e.g.

<u>chibs</u> - <u>bsgyur</u> <u>gnang</u> <u>'gro</u> 'i-yod-pa-red (<u>dro</u> :-)	'he was about to go, I think;
<u>sleb</u> <u>'gro</u> -'dug (<u>dro</u> :-),	'he has nearly reached' (Bell);
<u>lha</u> - <u>sa</u> <u>rang</u> - <u>gi</u> <u>mi</u> <u>cig</u> <u>dgos</u> -pa-yod (<u>go</u> :-)	'it is essential that he should be a Lhasa man (Bell);
<u>rde</u> 'u <u>bcu</u> <u>tham</u> -pa <u>dgos</u> -[pa]-red (<u>go</u> :-)	'I want ten cartridges' (G. and R., altered);

rta dgos-[pa-]ma-red (gɔ:-)

'I do not require a
horse' (G. and R.,
altered):

This exceptional exponent is identical with z exponent
(1. a. i).

A further exception concerns Pieces in which the
Verb is exemplified by bsgrigs or 'grig. In g
exponents (1. a. ii) (Vb. + Nomzg. Part., pa/ba/ga/nga/
ra) and (1. d. i, ii) (Vb. + Vbl. Part., gi/gvi/kyi)
long duration combines with i; but where the Verb
Syllable was bsgrigs or 'grig, the features invariably
noted in all R.'s unpremeditated utterances were not
these but (short duration + ɿ), e.g.

bsgrigs-ka (drɪgɿ) gnang-rgyu

'things for you to set'
(1. a. ii);

sgrigs-kyi-'dug (drɪgɿ-)

'he fixes it' (1. d. i);

['grig]-gi-ma-red-pa (drɪgɿ-)

'it will not do' (1. d. ii)

The exponents in these last two examples are the same as
those of z (1. d. ii, iii); but in all other grammatical
types of Piece, the behaviour of the Syllables bsgrigs
and 'grig conforms to that of Verb Syllables in the g
Piece.

It is at first sight a little surprising that
(velarity + plosion) (g) should not be a feature of g
exponent (1. c), in Words of the type Verb + Interrogative

Particle pa/ga/nga; there is no g-Piece form *dza:ga in, for example, bzhugs-gdan 'jag-pa (dza:ba:) (Main Verb), or *ja:ga in ga-par bzhag-pa (ja:ba:) (Main Verb), to correspond to the -ŋa of nana (gnang-nga) in the ŋ Piece. Possibly the reason for this absence of (velarity + plosion) (g) followed by (frontness + short duration) (a) is that these features are avoided so that there may not be any confusion between these forms, containing the Past Interrogative Particle pa/ga nga, with forms containing the Future Interrogative Particle ga/ka: the two forms would otherwise be homophonous; and, for example, thugs yun ring-thung ga-tshod bzhugs-gdan 'jag-ga (dza:ga), 'how long shall you stay', would then be phonetically indistinguishable from thugs yun ring-thung ga-tshod bzhugs-gdan 'jag-pa (dza:ba:), 'how long did you stay'.

If the various exponents of the eight terms of the Quality system are compared, it will be seen that certain of them are common to two or more terms. Thus, (long duration + e, ɛ, ø, y), (labiality + voice + plosion) (b), medium centrality (ə) appears among the exponents of g (l. a. ii; l. b. ii), of d (l. a; l. b), and of r (l. a. i; l. b. i): e:be ɛ:be ø:be y:be. In fact all the exponents of d are shared with at least

one other term.

It may be mentioned in passing that the Tibetan orthography provides a good, though not an infallible, guide to the eight types of Quality Piece. If it were not so, there would have been no point in using letters based on the ries-'jug g, ng, d, etc. to designate terms in the Quality system. A z Piece is regularly indicated by (orthographic) Syllable-final a, i, u, e, o, ', or s in the Verb Syllable, e.g. zhu-ba, 'to ask for', dga'-yong, 'you would do better to', zhus, 'they asked for';¹ a g Piece by final g or gs; an ŋ Piece by final ng or ngs, a d Piece by final d, an n Piece by final n, a b Piece by final b or bs, an m Piece by final m or ms, and an r Piece by final r or l; but, exceptionally, a z Piece may be symbolized by final d in the Verb Syllable, e.g. trɔgi-, 'khrud-kyi-'dug, 'he washes', tʃhɔgi-, 'byed-kyi-'dug, 'he does', by r, e.g. sɪgi-, 'zer-gyi-'dug, 'he says', by b, e.g. sɔgi-, 'srub-kyi-'dug, 'he churns'; a g Piece by final b, e.g. rgyab (ja:) ma shes-na, 'if they do not know how to speak'; an ŋ Piece by m(s), e.g. ʃɔŋbe-, 'shums-pa-red, 'he peeled'; a d Piece by bs, e.g. phe:be-, 'phebs-pa-red, or by s, e.g. phy:gi-, 'bus-kyi-'dug, 'he blows on'; an n Piece by s, e.g. ʃuŋgi-,

¹The s referred to here is not the yang-'jug but the ries-'jug.

shes-kyi-mad, 'I do not know', by ngs, e.g. sens
gyengs-pa-red (jembə-), 'he was distracted'; a b
 Piece by d, e.g. sibgu-, gsed-kyi-'dug, 'he sorts';
 an m Piece by n, e.g. sungu-, zin-gyi-'dug, 'he
 catches', komsɛ:, dkon-sa'i, 'a place of scarcity too',
 by ng(s), e.g. dgongs-pa ma mtshungs (tshəm), 'please
 do not be angry' (Bell), tshomsɔ, mchongs-song, 'it
 jumped'; and an r Piece by -u, e.g. forv-, bzhu-ba-red,
 'it melted', and by d, e.g. bgad-mo bgad-pa-red (gjerv-),
 'he laughed', (G. and R.).

With few exceptions it is the case that a given Verb is associated with, and can be exemplified from, a single prosodic type of Quality Piece, with the result that any such Verb can be classified as e.g. a z-Piece (zP) Verb, a g-Piece (gP) Verb, an ŋ-Piece (ŋP) Verb. To classify a Verb as zP, then, means that examples of the Verb so classified are limited to the z Piece, just as classifying a Verb as Tone-One (1W) means that it is limited to occurrence in Tone-One Words.

This classifying of Verb Syllables by the type of Quality Piece in which they are exemplified is particularly important in the case of the d Piece and therefore of dP Verbs; for the d Piece is the only

type of Quality Piece that has no criteria but only partial criteria. These partial criteria serve to distinguish a d Piece from an ŋ, an n, a b, and an m, but not always from a z or a g, and never from an r, Piece. The d Piece can be established only negatively, as not containing a zP, gP, or rP Verb Syllable, and therefore as being not z, g, or r, but d. Thus, the Piece **ce:dʒe**, skyes-byas, 'having originated', is identified as z, because **ce:**, skyes, is one of the two forms of the Verb skye/skyes, alternating with **ce/cl**, e.g. **cugere**, skye-gi-red, 'they grow', which is identifiable as an example of the z Piece under a criterion based on exponent (l. a. i); and this classification is extended to the form **ce:**, skyes (cf. also **ʃo/ʃy:**, zhu/zhus, 'ask for'; **so(so)/so:**, bzo/bzos, 'makə', **sa(sa)/se:**, za/bzas, 'eat'; Quantity system, 2121312). The ambiguous Piece **ce:dʒe** can, therefore, be classified only by reference to another Piece in which the same Verb is exemplified in an unambiguous form (**cuge-**). The same procedure is responsible for the classification of **si:bə-**, gzigs-pa-red, 'he saw', as an example of the g Piece: the Verb gzigs is also exemplified in the alternative ft form **si:ge-**, gzigs-pa/ga-red, 'he saw', which can be identified

as a g Piece under a criterion based on the features stated as exponents (1. a. ii) and (1. b. ii), whence gzigs is considered to be a gP Verb, and si:bəre, in which the gP Verb gzigs is exemplified, is also taken to be an example of the g Piece. dʒɛ:bə-, mjal-ba/ra-red, 'he met', and tsi:bə-, gtsir-ba/ra-red, 'he pulled out', alternate with ft forms dʒɛrv- and tsurv- respectively, both of which are rP examples under a criterion (i) based on the features stated as exponents (1. a. iii/iv), dʒɛ:bə- exemplifies the rP Verb mjal, and tsi:bə- the rP Verb gtsir; these are therefore both examples of the r Piece. The ambiguous Pieces exemplified in phe:bə-, phebs-pa-red, 'he came', ʃɛ:bə-, bshad-pa-red, 'he explained', and tri:bə-, bris-pa-red, 'he wrote', on the other hand, cannot be shown to be (i), z; for there are no forms *phɪɣɪdu:, *ʃʌɣɪdu:, and *trɪɣɪdu:; or (ii), g; for there are no forms *phe:ɣere, *ʃɛ:ɣere, and *tri:ɣere; or (iii), r; for there are no forms *pherere, *ʃerere, and *trurere; they are therefore assumed to be d Pieces. phebs, bshad, and bris are then classified as dP Verbs; and any Piece in which any of them is exemplified is a d Piece. All dP Verbs to be noted are listed at Appendix IV.

There is an exception to the statement that a given Verb is exemplified only from a single type of Quality Piece: zer, 'say'. The criteria of the terms of the Quality system require that some Pieces in which this Verb is exemplified should be classified as z but others as r, e.g.

r:	ser e-	<u>zer-ra-red</u>	'they said';
	sig e-	<u>zer-gyi-'dug</u>	'they say';
z:	sen e	<u>zer-na</u>	'if we say';
	sa	<u>ze</u>	'it is said'.

R. preferred the zP form ~~se~~be- to the rP form ~~ser~~e- (zer-ba/ra-red). The preferred form would regularize zer as a zP Verb, which was probably the reason why R. preferred it; but it is significant that in the unscripted recordings it is the forms ~~serere~~ and ~~sererj~~ne that occur, not the preferred alternatives. zer is, therefore, classified as a z/rP Verb, exemplified in either type of Piece.

The case for classifying the two Verbs phebs and sleb as bP rather than as dP rests on the following, and similar, examples, all from scripted texts:

'their hats came off', must be either gP, dP, or rP; but it is not possible to say which. Similarly, the Verbs bral, of bral-ba-red (trɛ:bere), 'it was separated from', and 'phrod, of 'phrod-pa-red (trø:bere), 'he recognized', can be proved not to be zP (there are no forms *trʌgɪdu:, *trɔgɪdu:; p. 346), and must therefore be either dP or rP but cannot be identified until it is known whether trɛ:bere alternates with a form *trɛrɛrɛ, and trø:bere with a form *trørɛrɛ (p. 347).-155). A list of all the Verbs in the material that must be either dP or rP, but cannot be precisely identified, is given at Appendix IV, as the final paragraph under the heading dP Verbs.

Each of the Verbs in the preceding paragraph is classifiable given sufficient material to supply adequate contexts for testing; but there are others that cannot be classified, because they cannot be contained in the sort of Piece that yields criteria, e.g. (i) the Imperative-Clause form shog, of 'dir shog (ʃɔ:), 'come here' (G. and R.), and mgvogs-po khver shog (ʃɔ:), 'come quickly' (G. and R.), and (ii), the Imperative-Clause form rgvugs, of 'di phar khver rgvugs (gju:), 'take this away' (G. and R.). Both shog and

rgyugs are either gP or rP; but it is not possible to say which, except that if the form rgyugs were identified with the Verb brgyugs/rgyugs, 'run', it could be identified as gP from e.g. g jagbere, brgyugs-pa-red, 'he ran'.

21213112. Verb-Complement and Particle Pieces

The second of the Quality statements also applied to monosyllabic and disyllabic Pieces. The monosyllabic Piece is grammatically classifiable as either (i), Verb, of the Complement sub-category: yod, vin, 'dug, red, yong, byung, med/mad, min/man; or (ii), Particle: yod (Past, Perfect), 'dug, (Past, Perfect), vin, red, yong, byung, med/mad (Past, Perfect), min/man (Past, Perfect), song, byong/myung; e.g. (i) (Verb), kho-rang 'brug-pa red (re:), bod-pa (re:), 'is he Bhutanese, or is he Tibetan', la, mang-po zhe-po mi-yong (-j5:), 'no, there would not be very many'; (ii), (Particle), (Mrs. Tharchin: bu bzugs-gdan 'jags-yod-pas, 'are you at home, Rinzin'); R.: la yod (j5:), 'yes, I am'; (first speaker: khvod rdo-rje gling-la 'gro-myong-ngas, 'have you ever been to Darjeeling'); second speaker: ma-myong (-n5:), 'no (lit. not been)' (Bell). With the exception of song and myong/nyung there is, thus, a

homographic Verb (Complement) corresponding to each Particle.

The Verb Piece may be co-terminous with a Verb Word, as in the first example of section (i), red (re:); or it may be part of one of those Vb. + Part. Words in which the order of categories is Particle -- Verb, as in the second example, mi-yong (-jɔ:). The Particle Piece may also be co-terminous with a Particle Word, as in the first of the two examples in section (ii), yod (jɔ:); or it may be part of a Vb. + Part. Word, e.g. sang-zhog bcar-gyi-yin (-jɿ:), 'I will come and see you tomorrow', or part of a Particle Word, as in the second example in section (ii), ma-myong (-pɔ:).

The disyllabic Piece is grammatically classifiable as either (i), Vb. + Part., the Verb being, of course, a member of the Complement sub-category, and the order of categories being Verb --- Particle, or (ii), Particle only; e.g. (i), kho-rang 'brug-pa yin-na (jɿ:ne), 'is he Bhutanese, I wonder, (or is he Tibetan)', 'di-'dras yin-pa-no (jumbe-), 'is that how it is'; (ii), (R.: [bha-than-nā] bzhugs-kyi-yod-na, 'does he stay at Bhutan House'; second speaker: a-tha ma'le'i mal-le brgyad-pa-la sa-'du tshang ko-ti, '"Sandu Tshang" Koti, at Ath Mail -- Eighth Mile'); R.:

[a-las] 'ong yod-na (jə:ne), 'oh, yes, mm, so he does';
lcag-par de ga-dus thon-pa-yin-na (-jɿ:ne), 'when did
 this type press start operating, then'.

The disyllabic Piece may be co-terminous with a Word, e.g. the first example in section (i), vin-na, and the first example in section (ii), yod-na; or it may be part of a Vb. + Part. Word (there are no examples in the thesis material of a Piece's being part of a Particle Word, though such Words are certainly possible), e.g. vin-pa(-no) (Vb.: vin; Part.: pa) and (thon-pa)-vin-na (Part.: vin, na) above.

The reason for treating Pieces containing Verb-Complement Syllables simultaneously with Pieces containing Particle Syllables only is that each of the Verb-Complement Syllables can be homophonous with one or more Particle Syllables, e.g. Verb-Complement yod, Non-future Particle yod, Perfective Particle yod: Verb-Complement vin, Non-present Particle vin; a considerable economy in statement can therefore be achieved by treating all four types of Piece (Vb., Part., Vb. + Part., Part. + Part.) together, and by stating for them too the same eight term system as has been stated for Pieces containing Main-Verb and Auxiliary-Verb Syllables (21213111).

Only four terms of that system are exemplified in Pieces of the grammatical type considered in 21213112; and this is not surprising when it is remembered that the number of lexical items concerned is small (pp. 356 - 8), much smaller than those of the Main-Verb and the Auxiliary-Verb type of Quality Piece (21213111). These four terms are: g, ŋ, d, n. The exponency of some of these terms (ŋ, n) is identical with that of these same terms in the Main-Verb and the Auxiliary-Verb type of Piece; but the exponency of the others (g, d) is sufficiently different for a separate statement to be necessary.

The exponents of the four terms are stated first, at 212131121, for the monosyllabic Piece; they may stand for Verb Piece and Particle Piece alike.

212131121. Monosyllabic Piece

- | | | |
|----|---|----------------------|
| g: | (closeness + backness + long/short duration): | u(:) |
| ŋ: | (nasality + backness + long/short duration + (i),
aperture between close and half-close, with
centrality, or (ii), half-openness) | ɤ(:)
ɤ(:) |
| d: | a. (frontness + long/short duration + (i), spreading
+ half-closeness/half-openness; or (ii), rounding +
half-closeness) | e(:)
ɛ(:)
ø(:) |

b. (frontness with centrality + aperture between close and half-close + short duration:

n: (frontness + nasality + long/short duration + (i) aperture between close and half-close, with centrality; ɿ(:)
or (ii), half-openness) ɛ(:)

e.g.

g: (Vb.) gas mi-'dug (-du:) 'it would not matter';

phyag-dpe skyon-rgyu 'dug
(du:) 'there is a book to be printed';

(Part.) ga-dus chibs-bsgyur gnang-
gi-'dug (-du:) 'when is he going';

la da-ga rang 'dug (du) 'yes, he certainly would';

ŋ: (Vb.) mang-po zhe-po mi-yong (-jɿ:) 'there would not be very many';

sems dga'-po ra-po byung
(tʃhɿ:) 'I was sort-of delighted';

(Part,) ma-myong (-ɲɿ:) 'no' (lit. not been) (Bell);

mig mthong-byung (-dʒɿ) 'I saw';

d: a.

(Vb.) kho-rang bod-pa red (re:) 'is he Tibetan, or
- - -';

la tsang-ni mad (me:) 'no, I have none whatever';

(Part.) la yod (jə:)

'yes, I am' [at home];

bzhag-a-yod (-jə)'I do not think I have
put it';

b.

(Vb.) rdo-par rang red (rɿ) dang'is it really a litho
press';(Part.) bsgrigs-kvi-yod-red (-rɿ)
dang

'does one adjust it';

n: (Vb.) nga bod-pa min (mɛ:)'I am not a Tibetan'
(Bell)ka-sbug-la 'gro-nyan vin
(jɿ:)'I am on my way to
Kalimpong';(Part.) sang-zhog bcar-gyi-vin
(-jɿ:)'I will call on you
tomorrow morning';da-ga rang vin (jɿ)

'you certainly did'

The degree of vowel duration of all four types of
Piece is related to differences in Intonation (Emphatic,
Non-emphatic: 2121212121, 2a and 5b; 2121212212).

The dP exponent given at (b) applies only to the
Syllable red, and then only when followed by the
Interrogative-Particle Syllable dang.

212131122. Disyllabic Piece

In the disyllabic Piece the second Syllable of the
Piece is one of the following Particle Syllables:

pa/ba/ga/nga/ra (Nominalizing, Past), shag/zhang, ma/mi,
'dug (Perfective, Non-future), yod (Perfective,

Non-future), med/mad (Perfective, Non-future), song, pa/ga/nga (Corroborative-Interrogative, Special Interrogative, Exclamatory), pas/gas/ngas/ras, na (Special-Interrogative, Alternative-Interrogative, Exclamatory), dus (Temporal, Nominalizing), tsang, nas/ni, byas, ze/se. The vowels and consonants of certain Particle Syllables vary with the type of Quality Piece in which each is contained, just as in the Main-Verb and the Auxiliary-Verb Piece (212131112). Special consideration has therefore to be given to those g, ŋ, d, and n exponents which relate to Pieces containing the following Syllables: (1), pa/ba/ga/nga/ra (Nomzg.), (2), pa/ba/ga/nga/ra (Past), (3), pa/ga/nga (Corrob.-Int., Spec.-Int., Exclam.), ga/nga (Alt.-Int.), (4), pas/gas/ngas, (5), tsang, (6), dog/dwogs/rdog.

1. The members of the sub-category of Verb Complement that is colligable with the sub-category of Nominalizing Particle that comprises the one member pa/ba/ga/nga/ra are yod, vin, med/mad, min/man, byung, possibly yong. (there are no examples in the thesis material), but not 'dug and red; the correspondingly colligable sub-category of Verbal Particle comprises yod, vin,

mad/med, min/man, probably byung, yong, song, myong/nyung, but not 'dug, and red. There cannot, therefore, be any gP examples for this grammatical type of Piece.

The exponents of η , d, and n are:

η : (backness + aperture between close and half-close, with centrality + short duration), (velarity + nasality), open centrality:

$\text{a}\eta\text{e}$

a. (frontness + long duration + either i, half-closeness + rounding, or ii, half-openness + spreading), (labiality + plosion/friction (ft) + voice), medium centrality

$\text{o}:\text{b}\text{e} \text{e}:\text{b}\text{e}$

b.

$\text{o}:\beta\text{e} \text{e}:\beta\text{e}$

b. (the vowels o and e + long duration as at (a)), (labiality + voice + occlusion + syllabicity):

$\text{o}:\text{b} \text{e}:\text{b}$

n: a. (frontness + spreading + long duration + either, i, aperture between close and half-close, with centrality, or, ii, half-openness (labiality + nasality), (labiality + plosion + voice), medium centrality:

$\text{u}\text{mbe} \text{e}\text{mbe}$

b. (the vowels u and e + short duration as at (a)), (labiality + nasality), either, i, (labiality + nasality), medium centrality, or, ii, (labiality + nasality + syllabicity):

i. $\text{u}\text{mme} \text{e}\text{mme}$;

ii. $\text{u}\text{mm} \text{emm}$

e.g.

- q: (Vb. + Part.) yag-po byung-nga-la 'on its turning out
(tʃhəŋe-) well';
- d: a. (Vb. + Part.)
sgra dag-po mad-pa (mɛ:bə) byas 'Not pronouncing it
properly';
bod-pa'i mi-rigs gang yod-pa (jə:pə) 'as many as there are
of Tibetan stock';
(Part. + Part.) gas 'byor-mad-po-no 'have you not
(-mɛ:bə-) received anything';
- b. (Part. + Part.)
sleb-kyi-[yod-pa-'dra] (-jə:p-) 'it will probably
arrive';
- n: a. (Vb. + Part.)
ljags-gong ga-tshod yin-pa (jumbə) 'what is the price'
(gnang-nga) (Bell);
de min-pa (mɛmbə) cig dgos-yod 'I want one apart
from this';
(Part. + Part.) phag-ri-la bsdad-kyi- 'he will probably
man-pa-'dra (-mɛmbə-) not stay at Phari';
- b. (Vb. + Part.)
a'u-rtse yin-pa-'dra (jumm-) 'I suppose it is
enough'.

2. The members of the sub-category of Verb Complement that colligates with the sub-category of Verbal Particle comprising the one member pa/ba/ga/nga/ra are byung, yod, and yin ('dug, yong, red, med/mad, and min/man are therefore excluded); while the

corresponding Particle sub-category comprises only yod, and thus excludes byung, 'dug, vin, yong, red, song, myong/nyung, med/mad, min/man. There cannot therefore be any gP examples, or ηP and nP Part. + Part. Pieces. The η, d, and n exponents are:

η: a. (backness + aperture between close and half-close, with centrality + short duration),

(velarity + nasality), labiality + voice + plosion), medium centrality:

anbe

b. (ft) the vowel a as at (a), (velarity + nasality), open centrality:

ane

d: half-openness + backness + rounding + long duration):

o:

n: as for (l), n, (a):

umbe embe

e.g.

η: (Vb. + Part.)

a. slab-nyan mang-po byung-nga-red 'there came to be a lot
(tʃhəŋbe-) of students;

b. phyug-po byung-nga(ba)-red 'he has become rich'
(tʃhəŋe-) (Bell);

d: (Vb. + Part.)

gsar-pa bsgrigs-ka gnang-rgyu yod-pa- 'would there be new
vin-pa-no (jo:-) ones for you to set'

gas yog-ma-red-pa (jo:-) 'there would not be
any, would there';

(Part. + Part.)

bsgrigs-kyi-yod-red (-o:-) dang 'would they adjust it';
kham-la 'khrungs-yod-pa-red (-jo:-) 'he was born in Kham'
 (G. and R., altered)

n: (Vb. + Part.)

rdo-par vin-pa-red (jumbe-) 'it is a litho press, I
 suppose';
su vin-pa-red (jumbe-) 'who do you suppose he
 is';

3. a. The members of the Verb Complement sub-category and the Particle sub-category that colligate with the Corroborative-Interrogative Particle (pa/ba/nga) are:

Vb.: 'dug, byung, yong, red,

Part.: " , " , " , " , song, myong/nyung;

there are no examples in the material of yod, vin, min/man, med/mad, all of which are thought not to be members.

b. The members of the Verb-Complement sub-category and the Particle sub-category that colligate with the Special-Interrogative Particle (pa/ga/nga) are:

Vb.: yod, 'dug, vin, byung, yong,

Part.: " , " , " , " , " , song, myong/nyung:

there are no examples in the material of red, med/mad, and min/man, which are thought not to be members.

c. The members of the Verb-Complement sub-category and the Particle sub-category that colligate with the Exclamatory Particle (pa/ga/nga) include:

Vb.: 'dug, byung,

Part.: " , " , vin, song;

no other forms have been noted in the material; and there are therefore no dP examples for this grammatical type of Piece.

d. The members of the sub-category of Verb Complement and of the Verbal Particle that colligate with the sub-category of Alternative-Interrogative Particle comprising pa/ga/nga are 'dug, yod, and vin, and probably also byung, yong, song, med/mad, min/man.

The exponents of g, ŋ, d, and n, so far as they can be exemplified in each of these four grammatical types of Piece, are:

g: (aperture between close and half-close + backness, with centrality + short duration),
(velarity + plosion), openness + frontness):

aga

a/ ŋ: (aperture between close and half-close + backness, with centrality, + short duration,
o)/(half-openness + backness + short duration,
o), velarity + nasality, (openness + frontness
+ short duration:

aga aŋa

d: a. (red) (aperture between close and half-close
+ frontness, with centrality + spreading + short
duration), (labiality + plosion), (openness +
backness + long duration):

tba:

b. (yod) (half-closeness + frontness + rounding
+ long duration), (labiality + plosion),
(openness + backness + long duration):

e:ba:

n: (aperture between close and half-close +
frontness, with centrality + short duration),
(labiality + nasality), (labiality + plosion),
(openness + backness + long duration):

lmba:

e.g.

g: (Vb. + Part.)

skon-sa'i 'dug-ka (doga)'what a shortage there
is' (Exclam.);sku-thang mnyes-po 'dug-ka (doga)'is it tiring, or
- - -' (Alt. Int.);

(Part. + Part.)

ga-re gsungs-kyi-'dug-ga (-doga)'what does he say'
(Spec. Int.);brjes 'gro-gi-'dug-ka (-doga)'it goes and changes,
does it not' (Corr.
Int.);

ŋ: (Vb. + Part.)

sku mnyel-po ma byung-nga (tʃhɔŋa)'so you did not get
tired' (Exclam.);gtam-dpe yong-nga (jɔŋa)'there is a proverb,
is there not' (Corr.
Int.);

(Part. + Part.)

sku mnyel-ma-song-nga (-soŋa)'then you did not get
tired' (Excl.);ga-tshod gsol-ras gnang-yong-nga
(-joŋa)'how much will (Your
Honour) give' (Bell)
(Spec. Int.);

d:

d: (Vb. + Part.)

tshong-rgvu ga-re yod-pa (jo:ba:)'what have you for sale'
(G. and R., altered)'di-'dras red-pa (ri:ba:)'that is how it is, is
it not' (Corr. Int.)

(Part. + Part.)

gas yog-ma-red-pa (-ri:ba:)'there would not be
any, would there'
(Corr. Int.);gnam-gru-nas phebs-kyi-yod-pa
(-jo:ba:)'are you coming' by air,
or (Spec. Int.);

n: (Vb. + Part.)

gong ga-tshod vin-pa (ju:ba:)'how much is it'
(Spec. Int.);

(Part. + Part.)

nga dang nyam-du bka'-mol gnang-nga-
vin-pa (-ju:ba:) 'why, you talked to me'
the summer (Excl.); - -dbyar-ka-la phebs-kyi-vin-pa (-ju:ba:) 'shall you be coming in
the summer, or - - -'
(Alt. Int.)

4. The g, ŋ, d, and n exponents in Pieces in which the
second Syllable is pas/gas/ngas/ras (General Interrogative)
are:

g: (aperture between close and half-close +
backness, with centrality), (velarity +
plosion, half-closeness:

age:

ŋ: either, i, aperture as for g above, or, ii, half-openness; (velarity + nasality), half-openness:

᠋ᠣᠨᠡ:

᠋ᠣᠨᠡ:

᠋ᠣᠨᠡ:

d: (frontness + either, i, half-closeness + rounding, or, ii, (frontness + aperture between close and half-close, with centrality, or, iii, half-openness + spreading), (labiality + friction), half-openness:

᠋ᠳᠤᠭᠡ: ᠋ᠳᠤᠭᠡ: ᠋ᠳᠤᠭᠡ:

n: (frontness + i, aperture between close and half-close, with centrality, or ii, half-openness), (labiality + nasality), (labiality + plosion), half-closeness/half-openness:

᠋ᠨᠢᠮᠡ:

᠋ᠨᠢᠮᠡ:

e.g.

g: (Vb. + Part.)

khang-pa skyid-po 'dug-gas (᠋ᠳᠤᠭᠡ:) 'is the house comfortable' (Bell);

tsha-sa'i mi-'dug-gas (-᠋ᠳᠤᠭᠡ:) 'is it not a hot spot too';

((Part. + Part.))

me 'bar-gyi-'dug-gas (-᠋ᠳᠤᠭᠡ:) 'is the fire burning' (G. and R.);

η: (Vb. + Part.)

- bod lung-pa chen-po yong-ngas (jɔŋɛ:) 'is Tibet a large country' (Bell);
spro-po byung-ngas (tʃhɔŋɛ:) 'was it pleasant';
 (Part. + Part.)
rdo-rje gling-la 'gro-myong-ngas
 (-ŋɔŋɛ:) 'have you ever been to Darjeeling' (Bell);
mtshong-song-ngas (-sɔŋɛ:) 'did he see';

d: (Vb. + Part.)

- gcig-pa red-pas (rɪβɛ:) 'is it the same';
sku-khams bzang-po yod-pas (jɔβɛ:) 'how are you';
 (Part. + Part.)
bzhes-kyi-med-pas (-mɛβɛ:) 'do you not take (chang)' (G. and R.)
klog mkhyen-gyi-yod-pas (-jɔβɛ:) 'can you read' (G. and R.);

n: (Vb. + Part.)

- lnga-pa yin-pas (jumbe:) 'are you in the fifth';
 (Part. + Part.)
rgyab-kyi-yin-pas (-jumbe:) 'Will you print it';
las-ka 'di byed-kyi-min-pas (-membe:) 'are you not going to do this work'.

5. The sub-categories of Verb Complement and of Verbal Particle that colligate with the Causative

Particle (tsang) comprise yod, med/mad, vin, min/man, possibly also byung,yong, song, myong/nyung, but not 'dug and red; there cannot therefore be any g examples.

The exponents of η , d , and n are:

η: none noted.

d: (frontness + long duration + either, i, half-
closeness + rounding, or, ii, half-openness +
spreading), affrication/(ft) friction:

ø:dz ε:dz
ø:z ε:z

n: (short duration + either, i, aperture between close and half-close + frontness, with centrality, or, ii, half-openness + frontness), (alveolarity - nasality), (alveolarity + friction):

e.g.

d: (Vb. + Part.)

rta-lcag med-tsang (mɛ:dzǎ:)

'since I have not got
a whip' (Bell);

(ft) bod-kyi mi-rigs mang-po yod-
tsang (jə:zā:)

'since there are lots of
people of Tibetan race'

n: (Vb. + Part.)

de yin-tsang (jɪnzǎ:)

'in which case':

(Part. + Part.)

lcag-par rang thon-pa-yin-tsang
(-junzā:)

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'because a real type
press has come out';
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6. The only two members of the Verb-Complement sub-category of Verb to have been observed in a colligation of Verb Complement with the sub-category of Nominalizing Particle of which dwogs/dog/rdog is a member are yod and yin; but it is possible that med/mad, min/man, and byung, though not yong, 'dug, and red, also belong to it. The exponents of d and n are:

d: (half-closeness + frontness + rounding + short duration), (dentality + nasality), (dentality + plosion):

end¹

n: (aperture between close and half-close + frontness, with centrality + short duration), (dentality + nasality), (dentality + plosion):

und¹

e.g.

d: yod-dwogs (jəndo:) kha-po red 'he may possibly have';

n: yin-dwogs (jundo:) kha-po red 'he may possibly be'.

Sections (1) - (6) above deal with the exponency of g, ŋ, d, and n in Pieces in which the consonants and vowels of the Particle Syllable vary in accordance with

¹No other vowels have been observed in the material.

the prosodic type of Piece; it remains to give an account of their exponency in Pieces in which the Particle Syllable is not one of those so far considered but one of the following: shag/zhag, ma/mi, 'dug (Perf.), yod (Perf.), med/mad (Perf.), song, na (Spec. Int., Alt., Int., Exclam., Conditional), du (Temp., Nomz.), nas/ni, byas, ze/se.

g: The sub-category of Verb Complement or of Particle to which the Syllables 'dug belong colligates only with the Conditional (na) and the Indirect-Speech (ze/se) sub-categories of Particle, and with a sub-category of Exclamatory Particle comprising na; its exponents are, therefore:

(closeness + backness + long duration), either, i, nasality, vowel, or, ii, (friction + syllabicity): u:nV u:s
e.g.

(Vb. + Part.)

yag-go 'dug[-na] (du:ne) 'mm, this is very good';

(Part. + Part.)

ga-re zer-gyi-'dug-na (-du:ne) 'what is this called, mm';

η: The sub-category of Verb Complement to which byung belongs is thought to colligate with sub-categories of Particle comprising all the Particles to be considered here; but the sub-category to which the Verb yong

belongs, and the sub-category of Particle to which byung, yong, song, and myong/nyung belong, are believed to colligate only with the Conditional (na), the Exclamatory (na), and the Indirect-Speech (ze/se). The η exponents are, therefore:

a. (long duration + nasality + the vowels a or o),

friction/nasality/semi-vowel:

$\text{ã:F } \text{õ:F}$

$\text{ã:N } \text{õ:N}$

$\text{ã:j } \text{õ:j}$

b. (Vb. + Part. only) (short duration + the vowel a), (velarity + nasality), plosion/affrication:

$\text{aŋd } \text{aŋdz}$

e.g.

(Vb. + Part.)

a. gtsang-ma byung-shag (tʃhã:ʃa) 'it has come neat';

b. skyon byung-'dug (tʃhãŋdu) 'damage got done';

(Part. + Part.)

a. sgang-tok-la phyin-song-zer 'say I went to Gangtok,
(-sã:ʃ), zhus-a would you'.

d: The Verbs yod and med/mad, and the Particles yod and med/mad, belongs to sub-categories of Verb and Particle that colligate with a sub-category of Particle comprising shag/zhang, na (Spec. Int., Alt. Int., Exclam., Condit.), dus (Temp., Nomzg.), nas/ni, ze/se,

and possibly byas; the Verb red and the Particle red, on the other hand, belong to sub-categories, of Verb or Particle, that colligate only with the Exclamatory (na) and Indirect-Speech (ze/se) sub-categories of Particle.

The d exponents are, therefore,

- a. (one of the vowels e, ø, ɛ + short/long duration),
(nasality + dentality)/(friction +
syllabicity): e(:)n e(:)ʃ ø(:)n ø(:)ʃ ɛ(:)n ɛ(:)ʃ
- b. (one of the vowels ø, ɛ + short/long duration),
(friction + palatality): ø(:)ʃ ɛ(:)ʃ
- c. (the vowels y, e + long duration), (dentality +
plosion): y:d e:d
- d. (the vowels ø, ɛ + long duration), (affrication
+ alveolarity): ø:dr ɛ:dr

e.g.

(Vb. + Part.)

- a. la red[-na] (re:n) 'mm, yes, he is';
- b. sku-gzugs bde-po yod-shag (jøʃa) 'I see you are well';
- c. med-dus (me:dy:) 'when he had not got';

(Part. + Part.)

- a. skad gzhan-pa slab-dgo-yod-na
(-jəne) 'you have to learn another
language, mm';

b. chibs-bsgyur gnang-gi-yod-shag
(-jəʃa)

'I see you are on your
way to';

d. snyung-gzhi phog-gi-mad-'gro
(-mɛ:drɔ)

'he might catch an
illness'.

n: The sub-categories of Verb, or Particle, to which vin and min/man belong colligate with a sub-category of Particle comprising shag/zhag, na (Spec. Int., Alt. Int., Exclam., Condit.), dus (Temp., Nomzg.), nas/ni, ze/se, and possibly byas (cf. also the dP Particles and Verbs yod and med/mad); the n exponents are, therefore:

a. (the vowels ɪ, ɛ + short/long duration), either, i,
nasality, vowel; or, ii,

friction: ɪ(:)nV ɛ(:)nV ɪ(:)ʃ ɛ(:)ʃ ɪ(:)s ɛ(:)s

b. (the vowel ɪ + nasality + short duration),
(nasality + syllabicity): ɪ̃

c. (the vowels ɪ, ɛ + short duration), (nasality
+ dentality), (dentality + plosion): ɪnd ɛnd

d. (the vowels ɪ, ɛ, + short duration), (nasality +
alveolarity), (alveolarity + affrication) ɪndr ɛndr

e.g.

(Vb. + Part.)

a. 'di min-na (mɛ:ne)

'apart from this';

sku-gzugs bde-po vin-shag (jʃʃa)

'I see you are well';

c. vin-dus (jindy:)

'when you are';

d. khong min-'gro (mendro)

'it is him, do you
not think';

(Part. + Part.)

a. ga-dus thon-pa-yin-na (-jine)

'when did it come into
operation';

b. ga-re [zer-ra-yin-na] (-jin)

'what is it called';

d. phag-ri-la bsdad-kyi-yin-'gro
(-jindro)

'he will probably stay
at Phari' (Bell).

The duration of vowel of d exponent (a) and n exponent (a) is associated with differences in pitch behaviour (Intonation: 2121212121, 2a; 2121212212).

From the prosodic type of Piece to which each is restricted the Syllables 'dug can be classified as gP, the Syllables byung, yong, song, and myong/nyung as nP, the Syllables yod, red, and med/mad as dP, and the Syllables vin and min/man as nP.

21213113. Particle Pieces

The first statement of exponency of the Quality system (21213111) dealt with monosyllabic and disyllabic Pieces containing Main-Verb and Auxiliary-Verb Syllables; the second (21213112) dealt with monosyllabic and disyllabic Pieces containing either Verb-Complement Syllables ('dug, byung, yong, yod, med/mad, red, vin, min/man) or Verbal-Particle Syllables belonging to a sub-category comprising 'dug, byung, yong, yod, med/mad, vin, min/man, song, myong/nyung, some of whose members are homophonous with members of the Complement sub-category of Verb. These two statements deal with complexes of inter-related vowel-duration, vowel-quality, and consonantal, features that characterize the various grammatical types of Syllable specified above, and, in addition to these, in the disyllabic Piece, whatever other Verbal-Particle Syllables are associated with them in that Piece; between them they provide for the relevant features of all three sub-categories of Verb Syllables, but completely cover only a limited number of the Verbal-Particle Syllables: the nine listed above, together with pa/ga (Corroborative-Interrogative), pa/ga/nga (Special-Interrogative, Alternative-Interrogative, Exclamatory).

Some of the remaining Particles are Nominalizing. These are to be treated together with the Noun, and not at 212131131 below; for both Noun and Nominalizing Particle colligate with the Nominal-Particle category in the order (i), Noun or Nominalizing Particle, (ii), Nominal Particle.

With the Nominalizing Particles withdrawn, the following Particles remain: de'i/te/ta'i/'das/da'i, a (Imperative), a (Dubitative), pas/gas/ngas/ras, -i, byas, nas/ni, dgos/dgo/go, gi/gyi/kyi, shag/zhag, ma/mi, na (Special-Interrogative, Conditional, Exclamatory), na/na'i (Alternative-Interrogative), ga/ka/kag, pa/ba/ga/nga/ra, do, gro/'gro, shig, 'dra, no, bzhin, tsang, yang/-'i/-s, dang/da (Imperative), dang (General-Interrogative), se/ze.

These remaining Particle Syllables are also characterized by special relationships of vowel duration with vowel quality, and of both of these with nasality. These complexes of inter-related features are of the following types: (i), long vowel duration combines with vowel qualities e, ɛ, y, a, but not with ɪ, unless accompanied by nasality (ɪ:), and not with ʌ, ɔ, ɒ, ə, ɐ, a; (ii), short vowel duration combines with the vowel qualities ɪ, e, ɛ, y, a, ɔ, ɒ, ʌ, ə, ɐ, but not with a; (iii), nasality combines with ɪ and a,

but not with **e, ɛ, ɔ, y, ɔ, a, ʌ, ɐ, ɐ**.

Certain of these Particle Syllables can be exemplified in Intraverbal Junction with the following Syllable; others of them are confined to Interpersonal Junction. The former are considered first, at 212131131, and the latter at 212131132.

212131131. Exemplifiable in Intraverbal Junction

These Particles can be further divided into those which can be exemplified both in Intraverbal Junction with the following Syllable and in Interpersonal Junction as well (ma/mi, gi/gyi/kyi, dgos/dgo/go, the Conditional Particle na) and those which are restricted to Intraverbal Junction with the following Syllable (the Dubitative Particle a and the Past Particle pa/ba/ga/nga/ra). The former are dealt with at 2121311311, and the latter at 2121311312.

2121311311. Exemplifiable in both Intra- and Inter-verbal Junction

Three of the four Particles concerned display the same features in Interpersonal Junction as do z-Piece Verbs in Interpersonal Junction (212131111): short duration + **a, v, ɔ**); e.g.

ma/mi: phebs ma (**ma**) thub-[tsang] 'since he cannot come';

gi/gyi/kyi: thugs 'phams-po [gnang-gis]
(-gɐ) 'he is sorry';

dgos/dgo/go: ga-le thad-go (-gɐ) 'good bye';

'they are classified accordingly as z-Piece by the same criterion as the z-Piece Verb.

In Intraverbal Junction with a following Syllable these three Particles can be characterized by precisely the same vocalic features as above; and the disyllabic Piece containing them is classified in accordance with the following z-Piece criterion: (short duration + a, ʌ, ɔ), consonant (e.g. r, d, ɥ), vowel (e.g. ʌ, u:, ø), e.g.

ma/mi gas yog-ma-red-pa (-marɿ-) 'there are not any,
are there';

gi/gyi/kyi sgrigs-kyi-'dug (-ɣɿdu:) 'that is right';

dgos/dgo/go bka'-mol zhu-dgos-yod (-gɔyɔ) 'I must have a talk';

but these vowels alternate with others:

ma/mi: a/ɿ/ɛ/ə/ɔ; gi/gvi/kyi: ɿ/ə/y; dgos/dgo/go: ɔ/ɔ.

These vowel alternations are ascribed to prosodic differences in type of Piece, and are dealt with through the Tempo, Juncture, Labialization, and Closure systems (21211, 2121314, 2121321, 212133).

Two of these alternative vowels, **e** and **y**, are new to the first Syllable of the disyllabic Quality Piece: they are not exemplified in either the disyllabic Main or Auxiliary Verb + Particle Piece (21213111) or the disyllabic Verb Complement + Particle Piece (21213112). In fact it is largely because of this phonetic difference that a separate statement of exponency has had to be made for

disyllabic Particle + Particle Pieces of the type dealt with in the current section. Thus the sequences of Intraverbal-Junction features **eCV** and **yCV** are also comprised in the criterion of the z term in addition to **ɿ/ɛ/a/ʌ/ɔ/əCV**.

Under the Intraverbal-Junction criterion **eCV** the Conditional Particle na can also be classified as z-Piece, e.g.

- | | |
|--|---------------------------------------|
| <u>'brug-pa yin-na-min</u> (- neṃṣ) | 'whether she is
Bhutanese or not'; |
| <u>bzhugs-gdan 'jag-yod-na-med</u> (- neṃṣ:) | 'whether she is at
home or not'; |
| <u>grang-mo yin-na-yang</u> (- nejǎ) | 'even though it is cold'. |

Thus, na resembles the other z-Piece Particles ma/mi and gi/gyi/kvi in being characterized by a central vowel quality (**e**) in Intraverbal Junction under certain conditions; but there is one important respect in which it differs from them: na can be characterized by **e** in Interpersonal Junction as well as in Intraverbal; e.g.

khebs-na (-**ne**) 'if it spreads over'; phebs-na (-**ne**) 'if she comes'. Here na differs from ma/mi in Interpersonal Junction, in the Particle Word ma (**ma**) (p. 376), and from the z-Piece Verbs in the Verb Words at 212131111 (-**ɿ**, -**ɛ**, -**a**, -**ɔ**, -**ə**), neither of which can be characterized by a central vowel quality; but the difference in vocalic features between na and e.g. the Particle ma/mi and the Verb blta (look at) reflects a difference in environment: in Interpersonal

Junction na is invariably the final Syllable of a polysyllabic Word; ma, and the Verbs in 212131111 are exemplified in monosyllabic Words. When compounded with another Syllable as part of a disyllabic Noun, on the other hand, the z-Piece Verb blta is also characterized by a central vowel quality (e), e.g.

bzo-blta (-e) 'appearance'; cf. blta (-a) 'gro-'dug 'he is about to look'.

Under comparable Interverbal-Junction conditions both z-Piece Verb in -a and z-Piece Particle are characterized by e (ma/mi cannot be the final Syllable of a polysyllabic Word).

It will have been observed that though na can be characterized in Intraverbal Junction by e but not by a, ma/mi is regularly characterized by a. The difference in vowel quality of these two z-Piece Particles is due to a difference in phonetic conditions. The two vowels are complementarily distributed: a is appropriate to Syllables that can be characterized by a fall in pitch (cf. also the Dubitative Particle a, 2121311312) and e to Syllables that cannot (cf. also the Past Particle pa/ba/ga/nga/ra and the Exclamatory na, 2121311312), except that in Fast Tempo utterances ma/mi has e as an alternative to a, e.g.

bear thub-ma-song (-məsʒ) 'I was unable to come and see (you)';
thug-ma-byung (-mədgʒ) 'I did not meet (him)' (G. and R.)
 (21211, vii).

2121311312. Intraverbal only

The three Particle Syllables a (Dubitative),
pa/ba/ga/nga/ra (Past), and na (Exclamatory) have in common
 the fact that they are invariably in Intraverbal Junction
 with the following Syllable.

Like ma/mi in Intraverbal Junction, and unlike the
 Conditional na (2121311311), a can be characterized by a
 fall in pitch, and therefore also by a front vowel quality
 (a); it is also characterized by a short duration; e.g.

yag-po a-yong (-ajʒ) 'I doubt whether it will turn
 out well' (Bell);

la yag-po shes-kyi-a-yod (-aje) 'I doubt whether I do speak
 it well';

it is, accordingly, classified as z-Piece by the same
 criterion: (short duration + ɪ/ɛ/a/ʌ/e/ɐ/ɔ/ɔ), consonant (C)
 vowel (V). This criterion also covers the alternative
 vowel ʌ, e.g.

chang 'di yag-po a-yin-na (-ʌjĩ-) 'I doubt whether this beer
 is all right'

(for the alternation of a with ʌ see Closure,

Like the Conditional na the two Particles pa/ba/ga/nga/ra
 and na (Exclamatory) cannot be characterized by a fall in
 pitch (2121311311); their vowel qualities are therefore

central (pa: e/ɛ; na:ə), not open and front (a); e.g.

bzhugs bzhugs-pa-yin-na (-bejɿ:-) 'you used to live, I suppose';

skyon tsha-ra-yin-na (-rejɿ:-) 'he has finished printing, I suppose';

phyag-las ga-gā-tsam cig
gnang-nga-yin-na (-ɲejɿ:-) 'about how long did you work, I wonder';

mdas yod-na-a (-əʔa) 'would that - - - were here' (Bell)

(for the alternation of e and ɛ see Quality, 212131112, 1,b; 212131122, 2). Both Particles are classified as z-Piece (e/ɛCV).

212131132. Exemplifiable in Interverbal Junction only

Those (twenty-one) monosyllabic Particles which either themselves invariably constitute a single (monosyllabic) Word (dang, de/i/te/ta/i/'das/da/i, 'dra, 21112/4), or are invariably final in a polysyllabic Word (nas/ni, the Alternative-Interrogative na/na/i, the Special-Interrogative na, shig, no, ze/se, -i/-s, byas, pas/gas/ngas/ras, dus, the Imperative a, ga/ka/kag, the Special-Interrogative pa/ga/nga, bshag/zhag, bzhin, tsang, yang), or appear to fluctuate between the two (dang/da, gro/'gro, do, 211123,5,6) can of course be classified only by reference to the Quality-system criteria applicable to Interverbal Junction. For certain of them classification in the light of these criteria offers no difficulty; the following can be

immediately classified:

z: (short durat. + $\text{ɿ}/\text{ɛ}/\text{ɔ}/\text{ɔ}/$	$\left[\begin{array}{l} \text{a, monosyll. Word} \\ \text{e, polysyll. Word} \end{array} \right]$	$\left[\begin{array}{l} \text{-shig, -nas/ni,} \\ \text{-no, -do,} \\ \text{(-)gro/'gro,} \\ \text{'dra (a),} \\ \text{-na (e);} \end{array} \right]$
ŋ: (nasality + $\text{a}/\text{ɔ}/\text{ɔ}/$)	$\left[\begin{array}{l} \text{dang, dang/da,} \\ \text{-yang;} \end{array} \right]$	

e.g.

z: <u>yin-pa</u> 'dra (<u>dra</u>)	'it seems to be';
<u>ga-dus</u> <u>chibs-bsgyur</u> <u>gnang-</u> <u>nga-yin-na</u> (<u>-na</u>)	'when did you come, I wonder';
<u>tshar-ni</u> (<u>-ne/ni</u>)	'having finished';
ŋ: <u>red dang</u> (<u>tā:</u>)	'is it'.

The z-Piece Syllable 'dra (a) can be compared to ma/mi in Interpersonal Junction (ma); -shig (ɿ) and nas/ni (ɛ/ɿ) can be compared to -gis/gyis/kyis (ɿ); and -no (ɔ), -do (ɔ), and (-)gro/'gro (ɔ) to dgos/dgo/go (ɔ) (2121311311). For the vowel alternation $\text{ɛ}/\text{ɿ}$ in nas/ni see Tempo, 21211, vi.

The difficulty with most of the remainder is that Interpersonal Junction offers no means of distinguishing d-Piece Syllables from certain r-Piece Syllables, g-Piece from certain r-Piece, and certain n-Piece from certain ŋ-Piece Syllables (pp. 312-13). For Verbs the further distinctions provided by features of the Verb Syllable in Intraverbal Junction (212131112, 212131122) make it

possible to identify Verbs whose classification is uncertain in Interverbal Junction; but no such possibility is open to those Particles which are restricted to Interverbal Junction, whence some cannot be identified with a single prosodic type, and are given alternative classifications:

d: $\left[\begin{array}{l} \text{(short/long durat. + e/ø/y)} \\ \text{(long " + ε)} \end{array} \right] \left\{ \begin{array}{l} \underline{\text{de'i}} \text{ (e/e:), } \underline{\text{byas}} \text{ (e),} \\ \underline{\text{dus}} \text{ (y),} \\ \underline{\text{pas/gas/ngas/ras}} \text{ (e:/ε:)} \end{array} \right.$

(the Non-Sentence-final-Clause Particles de'i, byas, and dus are generally characterized by short duration, and the Sentence-final-Clause Particle pas by long duration; for the e:/ε: alternation see Closure, 212133).

g: $\left[\begin{array}{l} \text{velarity/alveolarity/palatality, (short duration + a)} \\ \text{labiality/glottality, (long " + a)} \end{array} \right] \left\{ \begin{array}{l} \underline{\text{-ga/ka/kag}} \text{ (-ga), } \underline{\text{-shag/zhag}} \text{ (-ja), } \underline{\text{-pa/ga/nga}} \text{ (-ba:/ga/ŋa),} \\ \underline{\text{-a}} \text{ (-ʔa:)} \end{array} \right. :-$
 (these criteria apply only to polysyllabic Words; the alternation of a with a: for pa/ga/nga is dealt with through the Quality system, 212131112, 1.c and 212131112, 3);

n: $\left[\begin{array}{l} \text{(nasality + ʌ)} \\ \text{(nasality + ʌ)} \end{array} \right] \left\{ \begin{array}{l} \underline{\text{bzhin}} \text{ (ĩ); e.g.} \end{array} \right.$

d/r:	<u>red-pas</u> (- <u>βɛ:</u>)	'is it';
	<u>skyes-byas</u> (- <u>dʒe</u>)	'having been born';
g/r:	<u>mig lta-ga</u> (- <u>ga</u>)	'to see whether' (Bell);
	<u>bzhugs-gdan</u> ' <u>jag-a</u> (- <u>ʔa:</u>)	'do sit down';
	(for <u>pa/ga/nga</u> see 212131112, 1.c and 212131122, 3);	
n/ŋ:	<u>byas-bzhin</u> (- <u>ʃɿ</u>)	'therefore'.

The only Particles in this group that have not yet been classified are -'i/-s, -na/na'i, and -se/ze.

The first of these, -'i/-s, is invariably preceded by na (Conditional), and has been adequately illustrated above (2121311311). Since its vowel features cannot be separated from those of na, it can be classified only tentatively, as z-Piece.

-'i/-s appears to alternate stylistically with yang, the latter being appropriate to more formal circumstances.¹

The vowels of the Alternative-Interrogative Particle na/na'i vary according as the Clause in which it occurs is Sentence-final or not, short duration and centrality (e) being appropriate to Sentence-final position, and

¹Cf. Bell (Grammar, 89), in which su phyin-nas and su phyin-na-yang are given as alternatives for 'anybody who goes', while 'dug-nas alternates, similarly, with 'dug-na-yang for 'anything that is'. P. also occasionally uses -s rather than -'i; either is an adequate phonetic spelling.

long duration, backness, and openness (a:) to non-Sentence-final (the difference in pronunciation is occasionally symbolized in the orthography by the use of na'i in the non-Sentence-final Clause in preference to na); e.g.

rkang-skor vin-na'i (a:), glog vin-na (ə);

'is it foot-operated; or is it electric'.

de'i sngas-la - - - lcags-par da-ga vin-na (a:), yang rdo-par vin-na (ə);

'was it this very type press before that; or was it a litho press'.

sngan-ma nang-bzhin dbyin-ii gcig-go'i vin-na'i (a:), yang skad gzhan-pa slab-dgo-yod-na (ə);

'is it only English, like before; or have you got to learn other languages'.

This alternation in duration and quality can be treated as a correlate of the grammatical distinction, and does not need a prosodic system to account for it. na/na'i is classified as z-Piece, but with long duration, openness, and backness (a:) as an exceptional exponent, appropriate to the non-Sentence-final Clause. The Alternative-Interrogative is, after all, an exceptional Particle (pp. 159-60).

The Indirect-Speech Particle se/ze (s) is peculiarly

difficult to classify in terms of the Quality system, because it is never characterized by a vocalic articulation; e.g.

par-khang yod-pas-se (-s̥) 'have you a printing works';
bshad-go-red-se (-s̥) 'you must explain';
var chibs-bsgyur snang-se
 (-s̥), zhu-rog snang 'please ask him to come in'.

There are, however, other Particles that can be characterized, in Fast-Tempo utterances, by absence of vocalic: nas/ni (n̥), gi/gyi/kyi (ḡ, ḡ̃), ba/pa/ga/nga/ra (Past) (ḡ, m̥), ba/pa/ga/nga/ra (Nominalizing) (ḡ̃, ṛ̃), na (Conditional) (n̥) (21211, 111), e.g.

'das sleb-ni (-n̥) 'when I got here';
de-'dras zer-gyi-'dug (-ḡ̃-) 'that is what they say';
tsha-grang a'u-tsa [yin-pa
 (-m̥) 'dra] 'the temperature seems all right'.

All these Particles are z-Piece. It therefore seems reasonable to classify se/ze as z-Piece too, with syllabic consonant (ḡ̃) as an additional z-Piece criterion, but with the grammatical qualification that for the Indirect-Speech Particle a syllabic consonant is not merely a Fast-Tempo variant but the sole exponent of z.

Support for classifying se/ze as z-Piece comes from the prosodic classification of the Verb zer ('say'), with which se/ze seems to be associated, as z-Piece (or r-Piece)

(p. 348); cf. especially the z-Piece form **sa** of this
Verb in:

yag-go tsang-ni yong-gi-mi-
dug-se (**sa**) 'it is no good at all, they say',
in which **sa** has been confused with se/ze, and written se.

2121312. Quantity

The Quantity system is designed to account for certain of the differences in duration of vowel, together with associated differences in vowel quality, of the Verb Syllable of z Pieces (2121311), and for ~~cor~~related variations in the features of certain following Particle Syllables;¹ e.g. (i), the short vowels a , o , a/A , and e/r alternate with the long vowels $\text{y}:$, $\text{o}:$, $\text{e}:$, and $\text{e}:$ respectively for the majority of zP Verbs, e.g. zhu/zhus ($\text{f}\text{a}/\text{f}\text{y}:$), 'offer', za/bzas ($\text{sa}/\text{bA}/\text{bE}:$), 'eat', skye/skyes $\text{kj}\text{r}/\text{kjE}/\text{kje}:$), 'grow'; (ii), short duration is associated with r , e , a , o , and a , and long duration with e , e , o , and y , of which only e is common to both long and short series; (iii), the initial features of the Nominalizing-Particle Syllable pa/ba/ga/nga/ra alternate; e.g.

(1)

<u>bka'-mol</u> <u>zhus</u> ($\text{f}\text{y}:$) <u>mchog</u>	'we must have a conversation';
" <u>zhu</u> (fa) <u>dgos-kyi-red</u>	'he will have to have a conversation';
" <u>zhus-pa-red</u> ($\text{f}\text{y}:-$)	'he had a conversation';
" <u>zhu-rgyu</u> ($\text{f}\text{a}-$)	'anything more to be discussed';

¹The same degree of phonetic detail is shown in this as in the previous section (Quality, 2121311).

(ii)

go-ta (khə-) go-gi-'dug te

'he certainly hears' (Bell);

na-nas (na-)

'since you fell ill' (G. and R.):

bzos (sə:) tshar-song

'he finished making';

skyes (ce:) tshar-shag

'it has finished growing';

(iii)

gdan-'dren zhus (fo:) gnang-song 'he issued an invitation';thugs-phan bzos-pa (sə:be)
['di-la'i]

'in having benefited him too';

The Piece for which the Quantity system is stated may be monosyllabic or disyllabic. The monosyllabic Quantity

Piece may be a Verb Word, e.g. bka'-mol zhus (ʃy:)

mchog-gi-red-pa, 'we must have a conversation, must we

not', za (sa) 'gro-yod, 'I am about to eat', shi (ʃɪ)

tshar-song, 'it finished dying'; or it may be the

initial Syllable (Verb Syllable) of a Verb + Particle

Word, e.g. byed-thabs (tʃhi-) 'means of doing' (Bell),

byas-'dug (tʃhe:-) 'it has been done', zhu-gi-yod

(ʃə-) 'I offer'. The disyllabic Quantity Piece

comprises the first two Syllables (Verb Syllable and

Particle Syllable) of a Verb + Particle Word in which the

Particle Syllable is the Nominalizing-Particle Syllable

pa/ba/ga/nga/ra, e.g. gdan-'dren zhus [i.e. zhu-ba] (ʃo:)

gnang-song, 'he invited', bzo-ba (sə:) gnang-gi-yin-pa-'dra,

'he will probably produce', thugs-phan bzos-pa (sə:be)

'the fact that he has benefited'.

The Quantity system is a two-term system: Short (s), Long (l), whence Short Piece (sP) and Long Piece (lP). The exponents of these two terms are stated first, at 21213121, for the monosyllabic Piece, and secondly, at 21213122, for the disyllabic Piece.

21213121. Monosyllabic Piece

s

a. Non-Clause-final

(short duration +

- i. aperture between close and half-close +
some contrality): ɪ ʊ;
- ii. frontness/backness + half-openness): ɛ ɔ ʌ;
- iii. frontness + openness): a;

b. Clause-final

(long duration +

- i. backness: ɔ:;
- ii. frontness + closeness/half-closeness): ɪ: ɛ:;¹

l

(long duration +

- i. frontness + rounding): y: ɔ:;
- ii. " + spreading + half-closeness): e:;
- iii. " + " + half-openness): ɛ:;

¹Differences in the duration of vowel of the s Piece, and associated differences of quality, are dealt with at 21213122.

e.g.

s

- a. 1. bka'mol zhu-rgyu (ʃɔ-) 'anything further to be said';
- las-ka byed-kyi-yod (tʃhi-) 'I work';
- ii. dwangs-shes byed-dgo-red-se (tʃhe-) 'one must become an expert';
- go-ta (kha-) go-gi-'dug te 'he certainly hears, but - - -' (Bell);
- iii. tsha-ba tsha-sa'i (tsha-) 'a hot spot':
- b. 1. 'bras 'di zo (so:) 'eat this rice';
- zur-la ma 'gro (ndro:) 'do not go near the edge' (G. and R.);
- ii. sge-khung phye (tʃhe:) 'open the window' (G. and R.);
- gtsang-ma byis (tʃhi:) 'clean it';

l

- i. zhus (ʃy:) mchog 'I must tell him';
- gsar-pa bzos-byas (sɔ:-) 'having made it new';
- ii. skyes (ce:) tshar-shag 'it has finished growing';
- iii. bzas-pa-red (se:-) 'he ate'.

One of the s exponents (b.ii) is identical with one of the l exponents (ii), with the result that a

Clause-final Syllable characterized by (long duration + frontness + spreading + half-closeness) (e:) is ambiguous: it might be an example of the s Piece, e.g. sge-khung phye (tʃhe:) 'open the window' (G. and R.), or of the l Piece, e.g. 'o-na gsol-ja bzhes (je:), 'then please drink (H) tea (H)' (G. and R.).¹ Apart from this one exponent, the features cited as exponents of s (ɹ, ɛ, a, ɔ, ɒ; e:, a:, ɔ:, u:) and of l (e:, ɛ:, ɐ:, y:) could also be used as sources of the phonetic criteria by which these two terms are distinguished.

21213122. Disyllabic Piece

The exponents of s and l that are applicable to the disyllabic Piece are the following:

s

- i. (long duration + frontness + spreading), no consonant: e: ɛ:;
- ii. (long duration + backness), no consonant: ɔ: ɔ: ɒ:;
- iii. (short duration + frontness + non-rounding), consonant, vowel: ɹbe ɛbe abe;
- iv. (short duration + backness + rounding), consonant, vowel: ɔbe ɒbe;

¹Forms such as the sP ʃɪgɪjəpɛ:, bzhes-kyi-yod-pas, 'do you drink' (G. and R.), and the lP je:bere, bzhes-pa-red, 'you drank', require that the Verb bzhes should be classified as s/lP (p. 398); in which case the Imperative form je: is to be regarded as lP.

1

i. (long duration + frontness + spreading),

consonant, vowel:

e:be ε:be;

ii. (long duration + frontness + rounding),

consonant, vowel:

ø:be y:be;

e.g.

s

i. shi-ba (ʃe:)

'dying';

phye-ba (tʃhɛ:)

'opening';

ii. mig lta-ba (ta:)

'looking at';

bzo-ba (sɔ:) gnang-gi-yin-pa
dra

'he will probably produce';

gdan-'dren zhus [i.e. zhu-ba]
(ʃo:) gnang-song

'he invited';

iii. shi-ba (ʃube)

'dying';

las-ka byed-pa (tʃhɛbe)

'working';

iv. bzo-ba (sɔbe)

'making';

khru-dpa (trɔbe) gnang-na

'if you wash';

1

i. skyes-pa (ce:be)

'to have grown';

byas-pas (tʃhɛ:be:)

'on my saying';

ii. thugs-phan bzos-pa (sø:be)'the fact that he made it
advantageous';'khru-dpa (try:be) gnang-na

'if he has washed'.

The status of s exponents (iii) and (iv) as
compared with (i) and (ii) has already been considered

(pp. 339-40).

All of the above disyllabic-Piece examples are grammatically analysable as Vb. + Nomzg. Part.; and the phonetic features of the Nomzg.-Part. Syllable pa/ba/ga/nga/ra contained in them clearly can alternate according as the Piece is s or l, e.g. bzo-ba (so:), 'to make', bzos-pa (sø:be), 'to have made'; zhu-ba (fo:), 'to submit', zhus-pa (fy:be), 'to have submitted'; mig lta-ba (ta:), 'to look at', mig bltas-pa (te:be), 'to have looked at'. One might perhaps expect a similar alternation of phonetic features in the case of the homographic Verbal Particle (Past) pa/ba/ga/nga/ra; but, with a very few exceptions, the initial features of this Particle Syllable are constant, (labiality + voice + plosion/friction) (b/β), regardless of whether the form of the Verb is the s-Piece or the l-Piece, e.g. (sP), (søbe-), bzo-ba-red 'they (generally) make', (lP), bzos-pa-red (sø:be-) 'they made'; (sP), mig lta-ba-red (tabe-) 'they (generally) look at', (lP), mig bltas-pa-red (te:be-) 'they looked at'; (sP), bsrub-pa-red (søbe-) 'they (generally) churn', (lP), bsrubs-pa-red (sy:be-), 'they churned'. There is therefore no case for incorporating the Verbal-Particle Syllable pa/ba/ga/nga/ra

in a disyllabic Piece, as was done in the case of the Nominalizing-Particle Syllable of the same spelling; but it is important not to overlook certain exceptions, in which the initial consonant of the Verbal-Particle Syllable does not have (labiality + voice + plosion/friction) (**b/β**) as a feature. The only Verbs to be exemplified in the exceptions are dgos/dgo/go, 'must' and 'gro (Auxil.), 'about to'; and it is of some interest that the features characterizing both Verb and Particle Syllable are similar to those stated as exponent (ii) for the s disyllabic Piece above, (long duration + backness), no consonant, (**ɔ:**), e.g. dgos-[pa-red] (**go:re**), 'I want', (G. and R., altered), not ***gobere**; dgos-pa-ma-red (**go:mare**), 'I do not require' (G. and R., altered), not ***gobemare**; dgos-yod (**go:ɣə**), 'I need'; chibs-bsgyur gnang 'gro'i-yod-pa-red (**dro:-**), 'he is about to go, I think', not ***drobe-**.

Apart from the above exceptional forms, dgos/dgo/go is a regular zP Verb of the sP sub-type, e.g. dgos/dgo/go-gi-red, **gogyre:**, 'he will need'; dgos/dgo/go-gi-'dug **gogydu:**, 'he needs'; for 'gro, see pp. 408-9.

All the sP and lP examples given above are of course also, and equally, zP examples; and every zP example can be sub-classified as sP or lP. Certain Verb forms

may, then, be designated sP, or lP, as being appropriate respectively either to the s or to the l Piece.¹

Certain zP Verbs are limited to exemplification in Short Pieces, and can therefore be termed sP Verbs; but the majority of zP Verbs can be exemplified in either Short or Long Piece, and are therefore classified as s/lP Verbs; i.e. these latter Verbs have both sP and lP forms. A complete list of all sP Verbs to be have been observed in the material studied is given at Appendix IV; the following Verbs are examples of this class of Verb: shi, 'die'; phye, 'open'; na, 'hurt'; e.g.

<u>shi</u> (ʃɿ) 'dod-kyi-'dug	<u>shi-gi</u> -'dug (ʃɿ-)	<u>shi-ba-red</u> (ʃɿ-)
'he wants to die'	'he is dying'	'he died'
<u>phye</u> (tʃhɛ) chog-gi-'dug	<u>phye-gi</u> -'dug (tʃhɿ-)	<u>phye-ba-red</u> (tʃhɛ-)
'he may open'	'he is opening'	'he opened'
<u>na</u> (na) tshar-'dug	<u>na-gi</u> -'dug (na-)	<u>na-ba-red</u> (na-)
'he has finished being ill'	'it is hurting'	'it hurt'.

¹In the orthography the Short Piece is commonly indicated by final i, u, e, o, a, and ɿ in the Verb Syllable, and by initial b in the Particle Syllable pa/ba/ga/nga/ra, e.g. shi-ba, 'to die', na-gi-'dug, 'it hurts', bza-'ba, 'to eat'; the Long Piece is commonly indicated by final s in the Verb Syllable, and by initial p in the Particle Syllable pa/ba/ga/nga/ra, e.g. zhus, 'I offered', bzos-pa, 'to have made', skyes-pa-red, 'she gave birth to'.

A complete list of all s/lP Verbs to have been observed in the material studied is also given at Appendix IV; the following are examples of this type of Verb: bzo/bzos, 'make'; (b)za(')/bzas, 'eat'; zhu/zhus, 'submit'; skye/skyes, 'grow'; e.g. (the sP examples are on the upper of each pair of lines, and the lP on the lower)

<u>bzo</u> (<u>so</u>) <u>thub-kyi-'dug</u>	<u>bzo-gi-'dug</u> (<u>sa-</u>)	<u>bzo-ba-red</u> (<u>so-</u>)
'he can make'	'he is making'	'they (generally) make'
<u>bzos</u> (<u>sø:</u>) <u>tshar-song</u>	<u>bzos</u> (<u>sø:</u>)	<u>bzos-pa-red</u> (<u>sø:-</u>)
'he finished making'	'make it'	'he made'
<u>za</u> (<u>sa</u>) <u>dgos-kyi-yod</u>	<u>za-gi-'dug</u> (<u>sa-</u>)	<u>za-ba-red</u> (<u>sa-</u>)
'I have got to eat'	'he is eating'	'they (generally) eat'
<u>bzas</u> (<u>se:</u>) <u>tshar-song</u>		<u>bzas-pa-red</u> (<u>se:-</u>)
'he finished eating'		'he ate'
<u>zhu</u> (<u>ʃa</u>) <u>dgos-kyi-red</u>	<u>zhu-gi-'dug</u> (<u>ʃa-</u>)	
'he will have to submit'	'he is submitting'	
<u>zhus</u> (<u>ʃy:</u>) <u>tshar-song</u>	<u>zhus</u> (<u>ʃy:</u>)	<u>zhus-pa-red</u> (<u>ʃy:-</u>)
'he finished submit- ing'	'submit it'	'he submitted it'
<u>skye</u> (<u>kje</u>) <u>thub-kyi-'dug</u>	<u>skye-gi-'dug</u> (<u>kji-</u>)	
'it can grow'	'it is growing'	
<u>skyes</u> (<u>kje:</u>) <u>tshar-shag</u>	<u>skyes-shig</u> (<u>kje:-</u>)	<u>skyes-pa-red</u> (<u>kje:-</u>)
'it has finished growing'	'put up (a prayer-flag)	'it grew'

The two forms, sP and lP, of each of these Verbs require that long and short vowels be associated as follows:

- ɔ/ə ø:; e.g. sɔ/sə sø: bzo/bzos 'make';
 a/ʌ ε:; e.g. sa/sʌ sɛ: (b)za(ʼ)/bzʌs 'eat';
 ɒ y:; e.g. ʃɒ ʃy: zhu/zhus 'submit';
 ɛ/ɪ e:; e.g. kʃɛ/kʃɪ kje: skye/skyes 'grow'.

A conflict of evidence renders it doubtful whether the following should be added to the list:

- ʌ i:; e.g. sɪ si: (bzi) 'get drunk'.

There are no examples of bzi in the unscripted texts; in the scripted texts ra bzi-gi-red (sɪgɪre:) (G. and R.) and ra bzi-nas (sɪnɛ) (Bell) (not *sɪ:nɛ) suggest that bzi is a sP Verb, like shi, 'die', and not an s/lP Verb; for, if the latter were the case, in a Word containing the Past Particle nas/ni the Verb would be represented by its lP form, i.e. by *sɪ:. On the other hand R. volunteered a lP form in the example ra: sɪ:sɪ̃, ra bzi-song. There are no other likely sources of an association of ʌ with i: apart from the one Verb bzi.

Where a Verb has both sP and lP forms (e.g. sP: sɔ/sə, bzo, 'make'; lP: sø:, bzos), the short duration,

backness, and the degree of aperture, of so and sa, bzo, are ascribed to Shortness; the long duration, frontness, and half-openness of so:, bzos, are ascribed to Length: and neither form is considered to be the basic, or the derived, form. Each of the four sets of examples given in the last paragraph but one is regarded in the same way, as exemplifying each the same lexical item under alternative prosodic conditions, of Quantity.¹

There is one s/lP Verb that is irregular from the point of view of the associated vowels:

'do'	s:	<u>byed</u> (<u>tʃhɛ</u>)	<u>dgos-kvi-red</u>	<u>byed-kvi-'dug</u> (<u>tʃhɪ-</u>)
		'he must do'		'he is doing';
	l:	<u>byas</u> (<u>tʃhɛ:</u>)	<u>tshar-song</u>	<u>byas-pa-red</u> (<u>tʃhɛ:-</u>)
		'he finished doing'		'he did'.

Here, the sP vowels ɪ and ɛ are associated with a lP vowel ɛ:, not e:, which latter would regularize this Verb on the model of skye (kjɪ/kje:) above; alternatively, in order to regularize it on the basis of the lP form tʃhɛ:,

¹Tibetan orthography also associates these sets of vowels by using the same letter for each set in spite of differences in quality and duration: a a/ʌ/ɛ:; (ʔɪ ɪ/ɪ:); u ʊ/y:; ɛ e/ɪ/ɛ:; o ʊ/ʊ/ɔ:.

*tsha gogyre and *tshaqudu: would be required.

For the s/lP Verbs it is necessary to give some account of the range of occurrence of the two forms in terms of the types of Clause in which each can be exemplified, and hence the sub-categories of Particle and Auxiliary Verb with which each is colligable.

The most prominent of the types of Clause in which lP forms are contained is the Past-Tense Clause; the lP form sub-category of Verb colligates with the Past-Tense sub-category of Particle (byas, bzhin, nas/ni, yod, shag/zhag, med/mad, song, byung, 'dug), including the Past-Tense Interrogative Particle (Special: pa; General: pas), within the Word, e.g.

<u>skyes-byas</u> (<u>ce:dze:</u>)	'having originated';
<u>las-ka byas-pa-yin</u> (<u>tshε:bejĩ</u>)	'I worked';
<u>bag-leb ga-tshod bzos-pa</u> (<u>sε:ba:</u>)	'how many loaves have you made' (G. and R.).

In addition the lP sub-category colligates with the Past-Tense sub-category of Auxiliary (tshar), e.g.

<u>bzas</u> (<u>sε:</u>) <u>tshar-song</u>	'he finished eating';
<u>bltas</u> (<u>tε:</u>) <u>tshar-song</u>	" " looking';
<u>zhus</u> (<u>jy:</u>) <u>tshar-song</u>	" " serving'.

The only other Auxiliary Verb to be exemplified in

the same Clause as the 1P form of the s/1P Verbs is
(m)chog, e.g.

bka'-mol ra-po zhus (jy:) mchog 'we must have a sort-of
conversation';

bzos (sø:) mchog-gi-'dug 'he may make';

nyos (pe:-) " " " buy'

but see also the sP form below).

The 1P form is also appropriate to Non-Sentence-final
Clauses in which the Particles na, tsang, and na-yang/na'i
are exemplified, e.g.

yag-go byas-na (tʃhe:nə) 'if we do well';

mig ma bltas-na (te:nə) 'if you do not look';

byas-tsang (tʃhe:dzã:) 'therefore'.

It also colligates with the Generalizing Particle (yong),
e.g.

mnga-cha bzhes-yong (je:jʃ:) 'they eat sweet things';

tson-thog ga-re skye-yong (ce:jʃ:) 'what crops are grown' (Bell)

btas^s-ma rngas-yong (pe:jʃ:) 'they reap the crop'.

In Affirmative Imperative Sentences, the 1P form is
the appropriate form for the majority of s/1P Verbs (two-
form Verbs), which do not have a separate Imperative form;
and for such Verbs the 1P sub-category is therefore
colligable with the Imperative sub-category of Particle
(shig, dang, a), e.g.

<u>gsol-ja</u> <u>zhus</u> (ʃy:)	'offer tea' (G. and R.);
<u>na-bza'</u> <u>bzhes</u> (ʃe:)	'put on (your) clothes';
<u>bzos-shig</u> (sə:ʃɪ)	'make it!'

There are however four s/lP Verbs (three-form Verbs) that have a separate form for Affirmative-Imperative Clauses:

sə(:)	<u>bzo</u>	'eat';	cf. <u>sa/sʌ</u> ,	(b)za(ɪ);	sɛ:,	<u>bzas</u> ;
tə:	<u>ltos</u>	'look';	"	<u>ta/tʌ</u> ,	<u>lta</u> ;	tɛ:, <u>bltas</u> ;
ŋə:	<u>rngos</u>	'mow';	"	<u>ŋa/ŋʌ</u> ,	<u>rnga</u> ;	ɲɛ:, <u>brngas</u> ;
tʃhi:	bʏis	'do';	tʃhɛ/tʃhɪ,	<u>byed</u> ;	tʃhɛ:	<u>byas</u> ;
tʃhɪ-						

While accepting the last two Imperative forms (rngos, bʏis) for LT, R. preferred for his own usage the sP form ŋa (rnga) to ŋə: (rngos), and the sP form tʃhɛ/tʃhe: (byed) to tʃhi:/tʃhɪ (bʏis); e.g.

<u>btsas-ma</u> <u>rnga-shig</u> (ŋaʃɪ).	'reap the harvest' (G. and R., altered);
<u>atsang-ma</u> <u>byed</u> (tʃhɛ:).	'make it clean' (G. and R.);
<u>mu-zi</u> <u>ma</u> <u>bried-pa</u> <u>byed-a</u> (tʃhɛʔa:).	'do not forget the matches' (G. and R.).

Except where the spelling bʏis is used in the printed text, R. invariably used tʃhɛ/tʃhe: (byed).

Either sub-category of the s/lP Verb may colligate with the sub-category of Nominalizing Particle comprising

the one member pa/ba/ga/nga/ra, with the result that these Verbs have two Verbal Nouns, e.g. bzo-ba (so:), (rarely sobe), 'to make', bzos-pa (sø:be), 'to have made'; zhu-ba (fo:) (rarely fo:be), 'to submit', zhus-pa (fy:be), 'to have submitted'; bsrub-pa (so:) (rarely sobe) 'to churn', bsrubs-pa (sy:be), 'to have churned'; byed-pa (tʃhebe), 'to do', byas-pa (tʃhe:be), 'to have done'; 'khrud-pa (trøbe), 'to wash', 'khrud-pa (try:be), 'to have washed' (cf. pp. 339-40), e.g.

khyod de-'dra ma [byed-pa] 'your not doing like that'
(tʃhebe) (Bell, altered);

kho yag-po ma byas-pa (tʃhe:be) 'with his not having behaved
dang well';

sP: bzo-ba (so:) gnang-gi-yin- 'he will probably produce';
pa -'dra

1P: gzhung-las thugs-phan 'the fact that it has been
bzos-pa (sø:be) beneficial to the Government too'

sP: zhabs-phyi zhu-ba (fo:) 'since you have served';
gnang-nga-yin-tsang

1P: snyan-zhu zhus-pa (fy:be) 'his having informed'.
'di

It is the sP sub-category of Main Verb that colligates with the Honorific sub-category of Auxiliary (gnang), as in the two examples, bzo-ba and zhu-ba above; either can colligate with the Postposition ('di), the 1P form in Past-Tense Clauses, and the sP in non-Past-Tense.

The sP sub-category is also colligable with a sub-category of Past-Tense Particle (ba/pa/ga/nga/ra), e.g. (phal-cher) bod-la ia bsrub-pa-red (sa:be-).

'In Tibet they (generally) churn tea';

(phal-cher) su-'i-tsa-lan-la chu-tshod 'khor-lo bzo-ba-red (sa:be-);

'In Switzerland they make watches';

(phal-cher) rtsam-pa bza'-ba-red (sa:be-)

'They (generally) eat barley cakes';

and in this respect too the sP and lP forms overlap; for the lP form also colligates within the Word not only with this sub-category (ba/pa), but also with every other sub-category of Past-Tense Particle; e.g.

kha-sang ia cig bsrubs-pa-red (sy:be-).

'They churned tea the other day.'

zla-rnying atom bomb cig bzos-pa-red (se:be-).

'Last year they made an atom bomb.'

'bras btsos-nas, bzas-pa-red (se:be-).

'They cooked rice and ate it.'

The Particle ba/pa/ga/nga/ra is exemplified in all three examples of both the above two groups, the Verb bsrub/bsrus in the first example of each group, the Verb bzo/bzas in the second, and the Verb (b)za(')/bzas in the third; but it is not only in translation that these

combinations of sP form and lP form with ba/pa/ga/nga/ra differ from each other: quite apart from other levels of analysis, at the Grammatical Level the lP form colligates within the Clause with the Past-Tense sub-category of Noun e.g. (kha-sang, 'the other day'; zla-rnying, 'last year'); the sP form does not.

Both sP and lP sub-categories can, as has been shown in the preceding paragraph, colligate with the sub-category of Nominalizing Particle that comprises the one member pa/ba/ga/nga/ra, and with the sub-category of Past-Tense-Clause Particle that comprises pa/ba/ga/nga/ra, but this is exceptional; for, for the most part, sP and lP forms are complementary as regards colligability. Apart from these, the sP form is contained only in non-Past-Tense Clauses, in which it colligates within the Word with the non-Past-Tense sub-category of Verbal Particle: gi/gvi/kyi, dus, myong/nyung, ga/ka/kag (Final), e.g.

- | | |
|--|---|
| <u>tsha-ba skye-gi-'dug-gas</u> (<u>cigi-</u>) | 'have you a fever'
(G. and R.); |
| <u>byed-dus</u> (<u>tshidy:</u>) | 'when I do'; |
| <u>'gro-myong-ngas</u> (<u>droṇaṅ-</u>) | 'have you ever been'
(Bell). |
| <u>chos byed-ga</u> (<u>tshaga</u>), <u>'gro-gi-yin.</u> | 'I am going (there) in
order to study religion'
(G. and R.) |

It is the sP form that is appropriate to Negative Imperative Clauses; e.g.

'gor-po ma byed (**tʃhe**) 'do not delay' (G. and R.);
nga'i gdong-la ma 'gro (**dro**) 'do not go ahead of me'
 (G. and R.);

The sP form colligates within the Phrase with a sub-category of Auxiliary Verb that comprises:

dgos/dgo/go, 'must', 'gro, 'about to', thub/thugs, 'can',
gnang (honorific), 'dod, 'want to', shes, 'know how to',
mkhyen, 'know how to', ran, 'ready to', e.g.

zhabs-phyi zhu (**ʃa**) thub-pa byed-dgos 'shall you have to be
-red dang able to help with';

las-ka byed (**tʃhe**) dgos-kvi[-yod]. 'I have to work'.

za (**sa**) ran'dug. 'It is time to eat.'

Examples have also been recorded that include the Auxiliary Verb (m)chog; e.g.

bzo (**so**) chog-gi-'dug 'he may make it';

za (**sa**) " 'he may eat it';

nyo (**po**) chog-gi-'dug-gas 'may he buy it'.

Here again there is an overlap of the sP and lP forms; for the lP form is also exemplified in Clauses that include (m)chog and appears to be more common.

Examples have already been given of the colligation of the sP sub-category of Main Verb with the sub-category of Nominalizing Particle that comprises the single member

pa/ba/ga/nga/ra, which it shares with the 1P; all the remaining members of the Nominalizing-Particle category (except that there are no relevant examples of ta in the material) can be grouped into another sub-category that is colligable with the sP sub-category but not with the 1P: yag/ya, rgyu, dus, nvan/mkhan, rtsis, mus, rog, dwogs/dog/rdog, long, bstangs, thabs; e.g.

<u>bka'-mol</u> <u>zhu-rgyu</u> (ʃəʝə)	'anything further to say';
<u>dwangs-shes</u> <u>byed-nvan</u> (tʃhepɛ:)	'someone skilled in';
<u>zhu-rog</u> (ʃəro:) <u>gnang</u>	'please ask him'.

On page 398 certain vowels were associated with each other, a vowel with long duration being appropriate to the 1 form of the Verb, and a different vowel, or different vowels, with short duration, being appropriate to the s form; a similar association can also be made for certain initial consonants, velar-nasal (ŋ) and palatal-nasal (ɲ). For the Verb rnga/brngas 'mow', which is also classified as a e Verb in terms of the Labialization system (2121321), with s forms ŋa and ɲa and an 1 form ɲɛ:, velar nasality (ŋ) is part of the exponency of s, together with either (openness + frontness) (a) or (half-openness + backness + spreading) (ʌ), while palatal nasality (ɲ) is part of the exponency of 1, together with (half-openness + frontness + spreading) (ɛ:);

e.g.

- s: btsas-ma rnga-zhig (ŋa-) 'mind you reap the crop'
 " rnga-gi-'dug
 (ŋa-) 'he is reaping the crop'
 l: " brngas-yong
 (ŋe:-) 'they reap the crop'
 " brnas-pa-red
 (ŋe:-) 'they reaped the crop'

For R. velar nasality (ŋ) and (frontness + spreading) (ɛ:/ɛ/e:/i:/ɪ) are not a possible Word-initial sequence.¹

Before leaving the s/lP Verb an irregular Verb should first be noticed: 'gro/phyin/rgyugs, 'go'. 'gro (dro-/dra-) can be classified as a member of the sP sub-category of Verb: it is exemplified in Vb. + Part. Words in which the Particles are members of the sub-category of particle that colligates with the sP sub-category of Verb. e.g.

colligation with non-Past-Tense Particle (gi)

nyi-ma 'phrog-lags 'gro-gi-red-pa (drogy-).

'The day will get wasted, you know.'

colligation with sub-category of Past-Tense Particle (ba)

(phal-cher) Underground-la 'gro-ba-red (drobe-).

'They (generally) go by Underground.'

¹For P., on the other hand, the sequence ŋe: is possible initially in Words; and rnga/brngas is characterized by velar nasality in both l Piece and s Piece.

Negative Imperative Clause

nga'i gdong-la ma 'gro (dro).

'do not go ahead of me' (G. and R.).

If 'gro were an s/lP Verb, it would have an lP form *dro:, *'gros, which would be exemplified in Words containing the same sub-categories of Particle as those listed as colligable with the lP sub-category of an s/lP Verb above; but there is no such form. The vacuum is in part filled by a form phyin, which is to 'gro at the Grammatical Level what nyos is to nyo, bzos to bzo, and skyes to skye; e.g.

nga-'tsho lon-sgron-la [mar] phyin.

"We went off to London."

rgyal-rtse bar-du phyin-pa-red.

'He went as far as Gyantse.'

The form phyin differs, however, from the lP form of the majority of s/lP Verbs in that it cannot be contained in an Affirmative Imperative Clause (see rgyugs, PP. 350-1).

21213123. Duration (and Vowel Quality) of sP Verb Forms.

In the course of stating the Quantity system a difference in vowel duration with, in most cases, an associated difference in vowel quality was noticed for the exponents of the s Piece according as this Piece was or

was not Clause-final (21213121); cf. also:

phye: { sge-khung phye (tʃhe:) 'open the window' (G. and R.);
phye (tʃhe) chog-gi-'dug 'he may open it';
zo: { 'bras 'di zo (so:) 'eat this rice';
 " " zo-shig (so-) 'mind you eat this rice'.

These variations in vowel duration, and such differences in vowel quality as are associated with them, are related to place in the Clause, to whether the Verb Syllable in question is, or is not, final in the Clause (or, alternatively, contained in a Clause-final disyllabic Word in which the Particle category is represented by the Indirect-Speech Particle ze/se).

The phonetic features to be associated with the two types of environment, as exponents of s in each, are:

a. Clause-final

(long vowel duration +

- i. closeness): i:
- ii. half-closeness): e:
- iii. half-openness + backness + rounding): o:

(there are no examples of u: and a: in the material; but analogy leads one to expect them);

b. non-Clause-final.

(short vowel duration +

- | | |
|---|-----|
| i. aperture between close and half-close,
with some centrality): | i ɔ |
| ii. half-openness + frontness): | ɛ |
| iii. " + backness): | ɔ ʌ |
| iv. openness + frontness): | a |

e.g.

a.

i: e: ɔ:

- | | |
|---|---|
| i. <u>gtsang-ma byis</u> (tʃhi:) | 'clean it'; |
| ii. <u>rtsed-mo rtse</u> (tse:) | 'play a game'; |
| <u>sge-khung phye</u> (tʃhe:) | 'open the window'
(G. and R.); |
| iii. ' <u>bras</u> ' <u>di zo</u> (so:) | 'eat this rice'; |
| <u>zur-la ma</u> ' <u>gro</u> (ndro:) | 'do not go near the
edge' (G. and R.); |

b.

i ɔ ɛ ɔ ʌ a

- | | |
|--|---------------------------------------|
| i. <u>zhu</u> (ʃɔ) <u>dgos-kyi-red</u> | 'you will have to submit it' |
| <u>phrog-lag</u> ' <u>gro-gi-red-pa</u>
(dra-) | 'it will get wasted, will
it not'; |
| <u>gtsang-ma byis shig</u> (tʃhi-) | 'mind you clean it'; |
| ii. <u>sgo phye</u> (tʃhe) <u>chog-gi-</u>
<u>dug</u> | 'he is allowed to shut
the door'; |
| <u>rtsed-mo rtse-shig</u> (tse-) | 'you play a game'; |

2121313. Initial System

Each of the terms of the eight-term Quality system (2121311) shows some degree of variation in exponency; and none of them has a single exponent. The degree of variation in fact ranges from the two exponents stated for d, at 212131112, (1f) and (2), for m, at 212131112, (1d), to the seven stated for b, at 212131112, (1a), (1d), (2).

Some of these variants are accounted for through the Juncture system (2121314) and some through the Initial system. The latter system accounts for such variation in the final of the Verb Syllable as (i) nasality v. non-nasality, e.g.

(ŋ) laŋzĩ: lag-'dzing hand-to-hand fighting, cf. (ɣ) laŋfu: lag-shubs hand-covering, glove; (m) tɣmdɣ: stabs-mthun [? suitable occasion], cf. (p) tʃhɪdɣp byed-stabs opportunity for doing, and (ii) long v. short vowel duration, e.g. (ø:) ga-re yod-pa (jɔ:ba:) 'what have you got,' cf. (ø) yod-dwogs (jɔndɔ:) kha-po red 'he may have got'.

It is not, however, solely in order to account for such alternations in Syllable-final feature as these that the Initial system is set up. It owes its name to the fact that it also deals with Syllable-initial features.

There are Syllables that, when they are in Intraverbal Junction with a preceding Syllable, are invariably characterized by a single initial consonant e.g. *m*, *d*, *dz*: others, in contrast, can be characterized (in the appropriate types of Quality Piece) by an initial sequence of consonants, e.g. a labial nasal and either dental or velar plosion, dorso-alveolar affrication, or alveolar friction (*md mg mdz mz*), or a homorganic nasal and either dental, velar, or labial plosion, dorso-alveolar or apico-alveolar affrication, or alveolar friction (*nd ng mb ndz ndr nz*). The Initial system accounts for these Syllable-initial features as well as for the Syllable-final features referred to in the preceding paragraph; and, since two Syllables are concerned, the system is set up for a disyllabic Piece, the two Syllables of which are in Intraverbal Junction.

The Initial system comprises five terms, *m*, *n*, *b*, *g*, and *z*. Three of these terms, *m*, *b*, and *g*, are, as an aide-memoire, named from the corresponding sngon-'jug *m*, *b*, and *g* by which each is regularly represented in Tibetan orthography; but the *n* term is regularly represented in Tibetan orthography by the typographically inconvenient symbol ', and has therefore been named *n* from nasality, a prominent feature of the exponency of *n*. The remaining term is named *z* from zero: it has none of the nasal, or the labial- or velar-

stop, features that form part of the exponency of the other four terms of the Initial system, and is sometimes indicated in the orthography by absence of sngon-'jug.

All five terms of the Initial system are exemplified in the disyllabic Noun Piece; but only the n and the z terms are represented in the Verb + Verbal Particle, Verb + Nominalizing Particle, or Verbal Particle + Verbal Particle, types of Piece. Since only two terms of the Initial system are in fact exemplified in these three Verbal-Phrase grammatical types of Piece, it would clearly be possible to state two separate Initial systems, a two-term system for these three grammatical types of Piece, and a five-term system for others; but economy in statement makes it preferable to treat the five-term system as applicable to these three grammatical types of Piece as well, and to regard the absence from them of examples of the g, b, and m terms as merely fortuitous: the number of Particles concerned is in any case small (fourteen Nominalizing and thirty-two Verbal Particles), and so too is the number of lexical items that can be classified as g-Piece, m-Piece, or b-Piece.¹

¹A g Initial Piece, for example, contains one or other of only three lexical items: gcig 'one', gnyis 'two', and gsum 'three'; e.g. tʃəgtʃi: bcugcig 'eleven', tʃəmpɪ: bcu-gnyis 'twelve', tʃəksəm bcu-gsum 'thirteen'. These three are, therefore, the only lexical items that can be classified from the Initial system as g-Piece.

It is not really surprising therefore that there should be this absence of examples of the g, the m, or the b type of Initial Piece from some grammatical types of Initial Piece, or that there should be only three Particle lexical items classifiable as n-Piece, and none as g-Piece, m-Piece, or b-Piece.

In the Verb + Particle type of Initial Piece the order of grammatical categories is Verb first and Particle second, except for Pieces containing one of the two Pre-Verbal Particles ma/mi (Negative) and a (Dubitative) (211142) and a member of the Complement sub-category of Verb. In consequence, in the Verb + Particle Piece, and therefore in the Verbal Phrase, a Verb Syllable cannot be the second Syllable of a (disyllabic) Initial Piece, and cannot therefore be classified in terms of the Initial system (as n-Piece or as z-Piece), apart from Pieces containing one of the two pre-Verbal Particles initially in the Word; the number of Verbs that can be exemplified in a Piece of the latter type is very small; and is limited to members of the Complement sub-category of Verb (yod, yin, 'dug, red, yong, byung), e.g. a-yin, 'I doubt whether I am'; a-yod 'I doubt whether I have'; mi-'dug, 'it would not be'; ma-byung, 'it was not'.

It would be wrong, however, to conclude that, apart

from these eight items, Verbs cannot be given an Initial-system classification; for there is a grammatical type of Initial Piece in which a Verb lexical item ^{can} occur as second Syllable, and can therefore be classified. This type of Piece is the (disyllabic) Noun: some disyllabic Nouns are compounded of a Verb Syllable and another Syllable, e.g. (i) bsgyur, 'alter' in skad-bsgyur, 'interpreter', and phebs, 'come', in phyag-phebs, 'arrival'; (ii) gsung 'speak', in gsung-skad, 'speech', and phebs, in phebs-lam, 'road'; others (iii) are even compounded of two Verb lexical items, e.g. chibs, 'ride' and bsgyur 'alter', in chibs-bsgyur 'coming'/'going', or bzo, 'make', and blta, 'look', in bzo-blta, 'appearance'.

Where the disyllabic Noun is compounded of two Verb lexical items, as in (iii) above, or of a Verb and a non-Verb with the Verb Syllable first, as in (ii), then variant phonetic features of the first (Verb) Syllable need to be accounted for, and are accounted for, through the Initial system, in precisely the same way as this system is used to account for variation in the phonetic features of Verb Syllables in the Verb + Particle Piece (pp. 425-8); e.g. **-b'**, **+ɿ**, **-m** for chibs 'ride' in chibs-bsgyur **tʃhɪb'ɿu:** 'coming'/'going', chibs-dpon **tʃhɪbɿ:** 'head groom', chibs-smad **tʃhɪ(m)mɛ:** 'crupper',

chibs-'gros tʃhʌmdrø: 'amble'; or -g', -g, -ɔ:, -ŋ, for
tshogs in tshogs-pa tshvɔg'be/tshɔ:gə 'to assemble',
tshogs tshɔ: 'assemble!', tshogs-mchod tshvɔŋdzɔ:¹
 [religious gathering in Lhasa in second month].

Where, on the other hand, it is the second Syllable of the disyllabic Noun that is a Verb lexical item, as in (i) and (iii) above, then that second Syllable can be classified in terms of the Initial system according to the type of Initial Piece in which it can be exemplified.

For the purpose of stating the Initial system in relation to Verb lexical items it is, thus, necessary to draw examples not merely from the Verbal Phrase (Verb + Particle word, Particle + Particle Word), but also from the Nominal Phrase, (20, 051), from Noun and from Noun + Particle Words in which the Noun is disyllabic.

Examples of the exponents of the n and z terms of the Initial system can be given from both Verb + Particle, Verbal Particle + Particle, and (disyllabic) Noun Pieces; their exponents are therefore stated first (21213131, m; 21213132, z). The exponents of the m and the b terms are stated next (m, 21213133; b, 21213134); they concern the Verb, but not the Verbal or the Nominalizing

¹Also tshomdzɔ:

Particle. The remaining term, the g, is not concerned with either Verb or Particle but is nevertheless dealt with here in the thesis in order that the Initial system should not be stated piecemeal, and that exponents and examples of each term should be near enough for easy comparison. The space taken up by the g term is in any case very small (pp. 491-5).

21213131. n

The exponency of the n Initial term varies with the type of (disyllabic) Quality Piece and Juncture Piece; the Quality system (z, g, ŋ, d, n, b, m, r; 212131112) and the Juncture system (2121314) are therefore used as a framework within which to present the exponents of n.

Since the purpose of both the Initial system and the Juncture system is largely to account for variation in the phonetic form of the first-Syllable lexical item of the Piece, the exponents of the terms of this system, in phonetic transcription, are shown first in the form of a table, so that they may be seen at a glance, and so that they, and through them the n term of the Initial system, can be compared with the exponents of other terms of the Initial system:

Junct.

Quality

	z Piece	g Piece	ŋ Piece	d Piece	n Piece	b Piece	m Piece	r Piece
p:	$\begin{array}{c} \text{ɹ/ε/} \\ \text{a/ʌ/} \\ \text{ɔ/ɔ/} \end{array} \left[\begin{array}{c} \\ \\ \end{array} \right] \text{mb}$	$\begin{array}{c} \text{ɹ/a/} \\ \text{ʌ/ɔ/} \\ \text{o/ɔ/} \end{array} \left[\begin{array}{c} \text{ŋ} \\ \\ \text{m} \end{array} \right] \text{b}$	$\begin{array}{c} \text{ɹ/a/} \\ \text{ʌ/ɔ/} \\ \text{o/ɔ/} \end{array} \left[\begin{array}{c} \text{ŋ} \\ \\ \text{m} \end{array} \right] \text{b}$	$\begin{array}{c} \text{i/e/} \\ \text{ε/} \\ \text{ø/y/} \end{array} \left[\begin{array}{c} \\ \\ \end{array} \right] \text{mb}$	$\begin{array}{c} \text{ɹ/ε/} \\ \text{ø/} \\ \text{y/} \end{array} \left[\begin{array}{c} \\ \\ \end{array} \right] \text{mb}$	$\begin{array}{c} \text{ɹ/ɹ/} \\ \text{ɔ/} \\ \text{ɔ/} \end{array} \left[\begin{array}{c} \\ \\ \end{array} \right] \text{mb}$	$\begin{array}{c} \text{ɹ/a/} \\ \text{ʌ/} \\ \text{ɔ/} \end{array} \left[\begin{array}{c} \\ \\ \end{array} \right] \text{mb}$	$\begin{array}{c} \text{e/ε/} \\ \text{a/ʌ/} \\ \text{ɔ/o/} \end{array} \left[\begin{array}{c} \\ \\ \end{array} \right] \text{mb}$
t:	$V_{\text{nn}} \text{d}$	$V \left[\begin{array}{c} \text{ŋ} \\ \text{n} \end{array} \right] \text{d}$		$V_{\text{nn}} \text{d}$	$V_{\text{nn}} \text{d}$	$V_{\text{nn}} \text{d}$	$V_{\text{nn}} \text{d}$	$V_{\text{nn}} \text{d}$
k:	$V_{\text{ŋg}}$	$V_{\text{ŋg}}$		$V_{\text{ŋg}}$	$V_{\text{ŋg}}$	$V_{\text{ŋg}}$	$V \left[\begin{array}{c} \text{m} \\ \text{ŋ} \end{array} \right] \text{g}$	$V_{\text{ŋg}}$
c:	V_{ndz}	$V \left[\begin{array}{c} \text{ŋ} \\ \text{j} \end{array} \right] \text{dz}$	$V_{\text{ŋ}} \left[\begin{array}{c} \text{ŋ} \\ \text{a:}/\text{ɔ:} \end{array} \right] \text{dz}$	V_{ndz}	V_{ndz}	V_{ndz}		V_{ndz}
tr:	V_{ndr}	$V \left[\begin{array}{c} \text{ŋ} \\ \text{n} \end{array} \right] \text{dr}$	$V \left[\begin{array}{c} \text{ŋ} \\ \text{n} \end{array} \right] \text{dr}$	V_{ndr}	V_{ndr}	V_{ndr}	V_{ndr}	V_{ndr}
ts:	V_{nz}	$V \left[\begin{array}{c} \text{ŋ} \\ \text{n} \end{array} \right] \text{z}$	$V \left[\begin{array}{c} \text{ŋ} \\ \text{n} \end{array} \right] \text{z}$	V_{nz}	V_{nz}	V_{nz}		V_{nz}

i. the range of vowels appropriate to the first Syllable are shown at the head of the column; lower down in the column they are represented by **V**, except that in one instance (cŋ) alternative vowels (**ā: ɔ:**) appropriate to Fast Tempo utterances have had to be distinguished.

ii. Where alternative features are symbolized for the same exponent, the lower one is appropriate to Fast-Tempo utterances only, e.g.

$$(tg) \quad \mathbf{V} \begin{bmatrix} \eta \\ \mathbf{n} \end{bmatrix} \begin{bmatrix} \mathbf{d}_n \\ \mathbf{d}_z \end{bmatrix}, \quad (c\eta) \begin{bmatrix} \mathbf{V}\eta \\ \mathbf{\tilde{a}:/\mathbf{\tilde{o}:} } \end{bmatrix} \mathbf{d}_z$$

iii. In the available material there are no examples of the following: (t), ŋ Piece; (k), ŋ Piece; (c), m Piece; (tʃ), m Piece.

The exponents of n are, by type of Juncture Piece (i - vi; p, t, k, c, tr, ts) and by type of Quality Piece (z, g, ŋ, d, n, b, m, r):

i. p Juncture

z: ɹ/ɛ/a/ʌ/ɔ/ɔ , (lab. + nas.), (lab. + plos. + voice).¹

g: (ɹ/a/ʌ/v/o/ɔ + short dur.), (nas. + $\left\{ \begin{smallmatrix} \text{vel.} \\ \text{lab.} \end{smallmatrix} \right\}$), (lab. + plos. + voice)

ŋ: (ɹ/a/ʌ/v/ɔ + short dur.), (nas. + $\left\{ \begin{smallmatrix} \text{vel.} \\ \text{lab.} \end{smallmatrix} \right\}$), (lab. + plos. + voice)

d: (i/ɛ/ɛ/ø/y + short dur.), (lab. + nas.), (lab. + plos. + voice)

n: (ɹ/ɛ/ø/y + short dur.), (lab. + nas.), (lab. + plos. + voice)

b: ɹ/ɛ/v/ɔ , (lab. + nas.), (lab. + plos. + voice)

m: ɹ/a/ʌ/v/ɔ , (lab. + nas.), (lab. + plos. + voice)

r: (ɛ/ɛ/a/ʌ/ɔ/o + short dur.), (lab. + nas.), (lab. + plos. + voice)

¹In 2121313 the following abbreviations are used: vow. = vowel, dur. = duration, lab. = labiality, plos. = plosion, vel. = velarity, occ. = occlusion, nas. = nasality, fric. = friction, apico-alv. = apico-alveolar, dent. = dentality, dorso-pal. = dorso-palatality, aff. = affrication, pal. = palatality, liq. = liquidity, sib. = sibilant, voicels. = voicelessness, cor. = coronality, apic. = apicality, syll. = syllabicity, prev. = prevelarity, asp. = aspiration, non-asp. = non-aspiration.

e.g.


z: <u>phyag-'bul</u>	<u>tʃhʌmby:</u>	salutation
<u>rtsa-'phar</u>	<u>ʈsamba:</u>	pulse-beat
<u>me-'bar</u>	<u>mɛmba:</u>	fire-lighting
g: <u>gcig-'bum</u>	<u>tʃɪŋbɔm</u>	hundred thousand
ŋ: <u>rgyang-'bud</u>	<u>(ɟʌŋby:)</u>	banishment ¹
<u>gangs-'bebs</u>	<u>khaŋbe:</u>	snow-making
	<u>khambe:</u>	
d: <u>zhal-'bag</u>	<u>ʃɛmba:</u>	mask
<u>gus-'bangs</u>	<u>khymbā:</u>	your humble subjects
n: <u>dpon-'bangs</u>	<u>pɔmbā:</u>	master and subjects
b: <u>zhabs-'phongs</u>	<u>ʃɔmbā:</u>	anus
<u>chab-'bangs</u>	<u>tʃhɔmbā:</u>	subjects
m: <u>khom-'bog</u>	<u>khɔmbɔ:</u>	leather bag
r: <u>char-'bebs</u>	<u>tʃhɔmbe</u>	rain-making
<u>'bar-'bur</u>	<u>bʌmbu:</u>	uneven

'bul/phul, 'phar, 'bar, 'bum, 'bud, 'bebs, 'bag, 'bangs, 'phongs, 'bog, 'bur, 'ben, 'bol, and phrag (or bag), of which 'bul/phul, 'phar, 'bar, and 'bud are Verbs, can be exemplified in the n-Initial p-Juncture Piece as second Syllable, and are therefore classified as n-Piece. (App. VI).

¹Also ɟʌŋbi:.

m: <u>krom-mdā'</u>	<u>tromdē</u>	pistol
r: <u>gser-mdog</u>	<u>sendo:</u>	golden
<u>dmār-mdangs</u>	<u>māndā:</u>	ruddy complexion

On corresponding grounds to those which led to the classification of 'bul/phul, 'phar, 'bar, etc. as n-Piece (21213131 i), the following can be classified n-Piece (Appendix VI): lta, (?)rting,¹ 'thug, mdā' 'arrow', mdangs, mde, mdog, mdun, mdag, mdung, mdud, 'dun, 'dum, 'du, 'don, 'debs, 'ded, 'dod, ldang, lde, ldong, ldan, ldab, zla 'moon', 'spouse'; 'du, 'ded, 'dod, and ldang are Verbs.

The examples from which these lexical items are taken are disyllabic  Noun; it is also possible to draw examples from the Verbal Phrase, from Words of the type Verb + Particle or Particle + Particle; e.g.

d: <u>mchod-dwogs</u> (<u>tjhōndo:</u>)	<u>kha-po red</u>	he may possibly drink it
<u>yod-dwogs</u> (<u>jōndo:</u>)	" " " "	have it
n: <u>yin-dwogs</u> (<u>jūndo:</u>)	" " " "	be
z: i. <u>'gro-dwogs</u> (<u>drōndo:</u>)	<u>kha-po red</u> " " "	go ²

¹R. was willing to accept both the n Initial Piece ṛāndī: and the z Initial Piece ṛādī: for snga-rting 'sooner or later'.

²Verb + Particle examples of the other types of Quality Piece (g, ṛ, b, m, r) from other LT speakers (there are none in the material from R.), and particularly from Mrs. Taring ('phreng-ring lha-lcam sku-zhog), show the same features as for disyllabic-Noun examples; e.g. (z) za-dwogs (sāndo:); (g) gzigs-dwogs (sūndo:); (b) slab-dwogs (lāmdo:); (m) zin-dwogs (sūmdo:); (r) bcar-dwogs (tjāndo:).

- ii. la, mi-'dug (mindu:) no, there would not be
- iii. gsungs thub-kyi-mi-'dug
(-mindu) he cannot speak
- iv. khyad-mtshar mi-'dug-ka
({minda-}) it would be surprising,
would it not
- v. tsang-ni byung-mi-'dug - mindu there has not been at all

The second Syllable of an n Initial of one of these Verbal-Phrase grammatical types must be one of the following: dog/dwogs (Nominalizing Particle), 'dug (exx. z, ii-iii, Third-Person Particle; iv, Verb Complement; v, Perfect Particle); all four lexical items can therefore be classified as n-Piece. A Piece comprising any of these four together with a preceding Syllable in Intraverbal Junction with it must be an n Initial Piece; and a variant phonetic form of the first Syllable lexical item of the Piece is its n-Initial-Piece variant. (pp. 499-500)

Where the first Syllable of the Piece is the Negative-Particle Syllable ma/mi (exx. z, ii-v), the vowel of that Syllable is characterized by frontness, spreading, and a degree of aperture between close and half-close (ɪ); i.e. the variant of ma/mi appropriate to the n Initial Piece is mɪ (cf. 2121311311, ma/mə; 2121324, mɛ).

In Pieces in which the second Syllable is one of the two Particles 'dug (Third-Person, Perfect) Syllable-

initial nasality (ŋ) is invariably present where the preceding Syllable is the Negative Particle (ma/mi) or the Past Particle ba/pa/ga/nga/ra, e.g. bris thub-pa-'dug (-bendu), 'he would have been able to write'; zer 'gro-ba-'dug (-ɔ:ndu), 'he is about to say'. This nasality has also been observed where the preceding Syllable is not either of these, but (i) the non-Past Particle gi/gyi/kyi, preceding the Third-Person Particle 'dug, or (ii) a Verb, preceding the Perfect Particle 'dug; e.g.

- | | |
|--|---|
| i. <u>na 'dod-kyi-'dug</u> (<u>-gundu:</u>) | 'he wants to be ill'
(G. and R.) |
| <u>mgo na-gi-'dug-gas</u> (<u>-gundag-</u>) | 'does your head ache'
(G. and R.) |
| ii. <u>dmag-dpon sku-gzhogs bzugs-'dug-</u>
<u>gas</u> (<u>jundag-</u>) | 'is the Commanding
Officer at home'
(G. and R.) |
| <u>gangs-rud-kyis khyer-'dug</u>
(<u>kʲendu</u>) | 'an avalanche carried
them away' (G. and R.); |

but such examples as these are exceptional and are probably better treated as Reading-Style forms (all four were read from a book). The following examples, of the same grammatical types as those at (i-ii) above, are much more representative of LT; in them 'dug is not characterized by nasality:

- | | | |
|------|--|---|
| iii. | <u>sgrigs-kyi-'dug</u> (-yɪduː) | 'he fastens it' |
| | <u>'di-'dras zer-gyi-'dug</u> (-gɪduː) | 'that is the sort of
thing they say' |
| iv. | <u>skud-pa 'di chad-'dug</u> (tʃhɛːdu) | 'the needle has snapped' |
| | <u>zhed-drag byas-'dug</u> (tʃhɛːdu) | 'it is commonly said' |

In other words the two lexical items 'dug' appear to fluctuate in LT, showing the characteristic features of the n Initial Piece where mi or ba/pa/ga/nga/ra precede, but usually the characteristic features of the z Initial Piece (21213132) otherwise, at least in an unstudied utterance.

The Particle Syllable gi/gvi/kyi is invariably characterized by an i vowel quality in those examples in which a following Syllable 'dug is characterized by nasality, as in the examples at (i) above; and this quality is also appropriate to examples in which there is no such nasality, as in the examples at (iii), though in the latter the i quality is less usual than an y quality where the preceding Syllable (Verb) also has rounding (y/a/u/o); Labialization system, 2/2/32/12). Thus, the forms gi/ɣi (and gy/ɣy) can be regarded as the n-Piece forms of this Particle (cf. Labialization, 2/2/32/1, for the forms of this Particle other than the n-Piece: ge/ɣe, gi/ɣi, gy/ɣy).

iii. k Juncture

- z: vow., (vel. + nas.), (vel + plos. + voice)
 g: (vow. + short dur.), (vel. + nas.), (vel. + plos. + voice)
 ŋ: (vow. + short dur.), (vel. + nas.), (vel. + plos. + voice)
 d: (vow. + short dur.), (vel + nas.), (vel. + plos. + voice)
 n: (vow. + short dur.), (vel. + nas.), (vel. + plos. + voice)
 b: vow., (lab. + nas.), (vel. + plos. + voice)
 m: vow., $\left\{ \begin{array}{l} \text{(lab.)} \\ \text{(vel.)} \end{array} \right\} + \text{nas.}, (\text{vel.} + \text{plos.} + \text{voice})$
 r: (vow: + short dur.), (vel. + nas.), (vel. + plos. + voice);
 e.g.

z: <u>thugs-'gor</u>	thəŋgə:	delay
<u>sku-'gyed</u>	kəŋgje:	alms
<u>sku-khams</u>	kəŋgam	health
g: <u>'dzog-mgo</u>	zəŋgə	fist
<u>'drog-mgo</u>	(drəŋgə) <u>tsha-po</u>	apt to shy
d: <u>gnad-'gag</u>	nəŋga	importance
<u>'phrul-'khor</u>	tryŋgə:	magic wheel
n: <u>don-'gal</u>	thəŋgɛ:	[?hermaphrodite]
<u>bstan-'gyur</u>	təŋgju:	Tengyur
b: <u>zhabs-bskul</u>	fəŋgɣ:	[?transition]

	<u>skyabs-mgon</u>	<u>cəmgy:</u>	protector
m:	<u>lam-'gag</u>	<u>lamga/laŋga</u>	road-block
	<u>gzim-'gag</u>	<u>sɿŋga</u>	door-keeper [of the Dalai or the Regent]
r:	<u>gsar-'gyur</u>	<u>sɿŋgju:</u>	news
	<u>rgyal-khams</u>	<u>ɣɿŋgam</u>	world

The following are classified as n-Initial (App. VI):

bskul, khams 'element', khams 'territory', 'khor, 'khar,¹
'khyar, mgo, mgon, 'gal, 'gor, 'gag, 'go, 'gyur, 'gyed;
bskul, 'khor, 'gal, 'gor, 'gag, and 'gyur are Verbs.

iv. c Juncture

z: vow., (pal. + nas.), (pal. + aff.)

g: (vow. + short dur.), (pal. + nas.), (pal. + aff.)

ŋ: $\left\{ \begin{array}{l} \text{(vow. + short dur.), (vel. + nas.),} \\ \text{(\textcolor{red}{a}/\textcolor{red}{ɔ} + long dur. + nas.),} \end{array} \right\}$ (pal. + aff.)

d: (vow. + short dur.), (pal. + nas.), (pal. + aff.)

n: (vow. + short dur.), (pal. + nas.), (pal. + aff.)

b: vow., (lab. + nas.), (pal. + aff.)

r: (vow. + short dur.), (pal. + nas.), (pal. + aff.)

e.g.

z: phyag-'byor (tʃhandʒo:) yong-ba obtain

me-lcags mɿndʒa flint and steel

¹Doubtful: for phyag-'khar 'walking-stick' both the
n-Piece tʃhanga: and the z-Piece tʃhaga: have been
observed.

ŋ: <u>rang-'iag</u>	<u>raŋdʒa/rɛ:dʒa</u>	as before
<u>dgongs-'iag</u>	<u>gɔŋdʒa/gɔ̃:dʒa</u>	please keep in mind
d: <u>bod-liongs</u>	<u>phɔŋdʒɔ̃:</u>	Tibet
<u>mgul-cham</u>	<u>gɔŋdʒam</u>	cold
n: <u>sprin-'ja'</u>	<u>trɪŋdʒə</u>	rainbow
b: <u>rab-'byams</u>	<u>rɔmdʒam</u>	scholarly
<u>skyabs-'jug</u>	<u>cɔmdʒu:</u>	favour
r: <u>'jor-lcags</u>	<u>dʒɔŋdʒa</u>	mattock blade

The following are classified as n-Initial (App. VI):

lcags,¹ chag, bcug/'jug, 'iag, 'jol, 'jam, 'ja', liongs,
'byor 'byams; bcug/'jug, 'iag, and 'byor are Verbs.

v. tr Juncture

- z: vow., (alv. + apic. + nas.), (alv. + aff. + apic. + voice)
- g: (vow. + short dur.), (nas. + vel./alv.), (alv. + aff. +
apic. + voice)
- ŋ: (vow. + short dur.), (nas. + vel./alv.), (alv. + aff. +
apic. + voice)
- d: (vow. + short dur.), (alv. + apic. + nas.), (alv. + aff. +
apic. + voice)
- n: (vow. + short dur.), (alv. + apic. + nas.), (alv. + aff. +
apic. + voice)
- b: vow., (lab. + nas.), (alv. + aff. + apic. + voice)
- m: vow., (lab. + nas.), (alv. + aff. + apic. + voice)

¹For lcags the evidence is conflicting: me-lcags mɛŋdʒa,
 'flint and steel', 'jor-lcags dʒɔŋdʒa 'mattock blade',
 and sgo-lcags gɔŋdʒa support classification as n-Initial,
 but rmig-lcags mɪŋdʒa (not *mɪŋdʒa/mɪndʒa) 'horseshoe' as
 z-Initial.

r: (vow. + short dur.), (alv. + apic. + nas.), (alv. + aff. + apic. + voice)

e.g.

z: <u>chu-</u> 'gro	<u>tʃhandro</u>	drain
<u>bka-</u> 'dri	<u>kandri</u>	question
g: <u>yig-phreng</u>	<u>jandṛā:</u>	sentence
<u>dmag-</u> 'khrug	<u>mandru:</u>	war
z: <u>dmangs-</u> 'khrug	<u>mandru:</u>	
<u>shing-</u> 'bras	<u>jindre:</u>	fruit
d: <u>spus-</u> 'bring	<u>pyndrṛ:</u>	medium quality
<u>nas-</u> 'bru	<u>nendro</u>	barley grain
n: <u>spyen-</u> 'dren	<u>tʃendrṛ:</u>	invitation (oracle)
<u>rgun-</u> 'brun	<u>gyndrom</u>	grape
b: <u>rgyab-</u> 'dre	<u>jamdri</u>	quarrel
<u>rab-</u> 'bring	(<u>rymdrṛ:</u>) <u>mtha'</u>	of all sorts
m: <u>mtshams-</u> 'dri	<u>tshamdri</u>	introduction
r: <u>nor-</u> 'khrul	<u>nendry:</u>	mistake
<u>skyel-</u> 'dren	<u>cendrṛ:</u>	escort

The following are classified as n-Initial (App. VI):

'khrug, 'khrul, 'gro, 'gram, 'grul, 'gros, ngron,
'dri/dris, 'dre, 'dren, 'dren, 'dred, 'dra, phreng,
'bras,¹ 'bru, 'brug, 'brun, 'bring; 'khrug, 'gro,

¹Supported by the n-Piece examples jendre: bzhes-'bras,
tʃhandre: bya-'bras, ja-'bras, but not jamdre: sha-'bras,
which would require 'bras to be classified as m-Initial
(21213133).

'dri/dris, and 'dre/'dres are Verbs.

vi. ts Juncture

- z: vow., (alv. + cor. + nas.), (alv. + cor. + fric. + voice)
- g: (vow. + short dur.), (vel./alv. + nas.), (alv. + cor. + fric. + voice)
- ŋ: (vow. + short dur.), (vel./alv. + nas.), (alv. + cor. + fric. + voice)
- d: (vow. + short dur.), (alv. + cor. + nas.), (alv. + cor. + fric. + voice)
- n: (vow. + short dur.), (alv. + cor. + nas.), (alv. + cor. + fric. + voice)
- b: vow., (lab. + nas.), (alv. + cor. + aff. + voice)
- m: vow., (lab. + nas.), (alv. + cor. + aff. + voice)
- r: (vow. + short dur.), (alv. + cor. + nas.), (alv. + cor. + fric. + voice)

e.g.

z: <u>mgo-'dzug</u>	<u>gonzu:</u>	beginning
<u>nga-tsho</u>	<u>ganzo</u>	we
g: <u>lag-'dzing</u>	<u>lanzĩ:</u>	affray
<u>bdag-'dzin</u>	<u>danzĩ:</u>	selfishness
ŋ: <u>nang-mdzod</u>	<u>nanzø:/nanzø:</u>	best-quality scarf
<u>bang-mdzod</u>	<u>phanzø:</u>	store-house
d: <u>skas-'dzeg</u>	<u>kjenza</u>	ladder
<u>dpyad-mtshams</u>	<u>tjenzam</u>	judgement
n: <u>gan-'dzin</u>	<u>kjenzĩ:</u>	contract
<u>gsan-'dzod</u>	<u>senzø:</u>	misunderstanding

b: <u>'thab-'dzing</u>	<u>thamzɿ:</u>	fight
m: <u>lam-'dzom</u>	<u>lamzom</u>	road-junction
r: <u>ster-mdzod</u>	<u>tenzə:</u>	treasury

The following are classified as n-Initial (App. VI):

'dzing, 'dzeg, 'dzom, 'dzug, 'dzum, 'dzol, 'dzin,
mdzub, mdzod, tsho/'tsho, mtsham; 'dzing, 'dzom,
'dzeg, and 'dzug are Verbs.

21213132. z

As with the n term of the Initial system the exponents of the z term are stated within the framework provided by the Juncture system (i - xi; p, t, k, c, tr, ts, n, m, l, s, q; 2121314) and the Quality system (z, g, ŋ, d, n, b, m, r; 2121311). First, they are illustrated by two tables, in which these exponents are symbolized in phonetic transcription. Two tables are needed because there is a slight difference in exponency according to the grammatical type of Piece in which they occur. The first table (p.436a) gives examples from the Verbal Phrase, i.e. from the Verb + Particle Word and from the Verbal-Particle + Verbal-Particle Word, and provides the means of classifying Verbal Particles, Nominalizing Particles, and some members of the Complement sub-category of Verb as z-Piece

(for the Verb Complement 'dug see 21213131, ii).

The second (p. **436 b**) gives exponents drawn from the disyllabic Noun (i - xi) and the trisyllabic Noun (xi) and provides the means of classifying as z-Piece those Verb, Noun, and Adjective lexical items which can occupy the second place in a disyllabic Piece taken from these types of Noun.

i. Vb. + Part. (Nomzq./Verbal), Vbl. Part. + Vbl. Part.

1. Vb. + Part. (Nominal/verbal), Verb												
z Piece		g Piece		ŋ Piece		d	n	b		m	r	
	-	l		st		ft			ft			ft
p:	Vb	V:b	$\begin{matrix} i:/a: \\ /o: \\ /u: \end{matrix} \left[\begin{matrix} b \\ /p \\ /o \end{matrix} \right] \begin{matrix} /a \\ /p \\ /o \end{matrix} \right] g'b$	$\begin{matrix} i/\epsilon \\ /p \\ /o \end{matrix} \left[\begin{matrix} a \\ /p \\ /o \end{matrix} \right] \left[\begin{matrix} \eta \\ /m \end{matrix} \right] b$	V _ŋ V	V:b	Vmb	Vb		mb	$\begin{matrix} i:/e:/\epsilon: \\ /y:/\emptyset:/a: \\ /o:/u: \end{matrix} \left[\begin{matrix} b \\ /p \\ /o \end{matrix} \right] \begin{matrix} i/\epsilon \\ /y/\emptyset/a \\ /p/\emptyset \end{matrix} \right] b$	$\begin{matrix} i/\epsilon \\ /y/\emptyset/a \\ /p/\emptyset \end{matrix} \left[\begin{matrix} r \\ /p/\emptyset \end{matrix} \right] r$
t:	V _n		V: _n		$V \left[\begin{matrix} \eta \\ /n \end{matrix} \right] d_n$		V: _n	Vnd _n	Vb'd _n	m _n	V: _n	
k:	$V \left[\begin{matrix} g/\jmath \\ /x \end{matrix} \right]$		V:g/ _ɣ		V _ŋ g/gj		V:g/ _ɣ	V _ŋ g/gj	$V \left[\begin{matrix} b' \\ /p \end{matrix} \right] \left[\begin{matrix} g/\jmath \\ /x \end{matrix} \right] \begin{matrix} u: \\ /o: \end{matrix} \right] g$	$\left[\begin{matrix} mg/\jmath \\ /ŋg \end{matrix} \right]$	V:g/ _ɣ	
c:	Vd ₃	V:d ₃ / ₃	V:d ₃		$V \left[\begin{matrix} \eta \\ /n \end{matrix} \right] d_3$	$\begin{matrix} i:/\tilde{a}: \\ /s:/\tilde{o}: \end{matrix} \left[\begin{matrix} d_3 \end{matrix} \right]$	V:d ₃	V _n d ₃	Vb'd ₃	m _{d3}	V:d ₃	
tr:	Vdr						V:dr	Vndr				
ts:	Vdz	V:dz	V:dz		V _ŋ z	Ṽ:z	V:dz	Vnz	Vb'z	mz	V:dz	
n:	Vn/ _n	V:n	V:N	$V \left[\begin{matrix} g \\ /n \end{matrix} \right] N$	Ṽ:N		V:N	Ṽ:N	$V \left[\begin{matrix} b' \\ /m \end{matrix} \right] N$	mN	V:N	
m:	Vm	V:m	V:m		Ṽ:m		V:m	Ṽ:m	$V \left[\begin{matrix} b' \\ /m \end{matrix} \right] m$	mm	V:m	
l:	Vl/r/j	V:j	V:l	Vgj	Ṽ:L		V:L	Ṽ:L	$V \left[\begin{matrix} b' \\ /p \end{matrix} \right] L$	mL	V:L	
s:	Vs/ _ɣ / _ɣ	V:S	V:S	$V \left[\begin{matrix} k' \\ /x \end{matrix} \right] \left[\begin{matrix} s \\ /f \end{matrix} \right]$	Ṽ:S		V:S	Ṽ:S	$V \left[\begin{matrix} p' \\ /b' \end{matrix} \right] S$	mS	V:S	
q:	$V: \left(\begin{matrix} Vb \end{matrix} \right)$	V:b	$V: \left[\begin{matrix} b \\ /g \end{matrix} \right]$	Vg'b	V _ŋ b	$V \left[\begin{matrix} \eta V \\ /j \end{matrix} \right] \quad \tilde{V}:\tilde{V}$	V:b	$Vm \left[\begin{matrix} b \\ /m \end{matrix} \right]$	$V \left[\begin{matrix} b \\ /p \end{matrix} \right]$	mb	$V: \left[\begin{matrix} b \\ /p \end{matrix} \right]$	Vr/r'

	z Piece		g Piece		ŋ Piece		d	n	b	m	r
	-	l		st		ft					
p:	Vb		$\begin{bmatrix} \text{v/a} \\ \text{v/Δ} \\ \text{v/ə} \end{bmatrix} \begin{bmatrix} \text{g'b} \\ \text{g} \end{bmatrix}$		$\begin{bmatrix} \text{v/a} \\ \text{v/Δ} \\ \text{v/ə} \end{bmatrix} \begin{bmatrix} \text{ŋ} \\ \text{m} \end{bmatrix} \text{b}$		V:b	Vmb	Vb	mb	$\left. \begin{array}{l} \text{i:/e:/ε:/} \\ \text{y:/ø:/a:/Λ:/} \\ \text{/o:/a:/u:/} \end{array} \right\} \text{b}$
t:	Vd/t	V:d _n	$\text{V} \begin{bmatrix} \text{k't} \\ \text{g'd/t} \end{bmatrix} \text{t}^1$		$\text{V} \begin{bmatrix} \text{ŋ} \\ \text{n} \end{bmatrix} \text{d}_{\text{n}}$		V:d/t _n	Vnd _n	$\text{V} \begin{bmatrix} \text{p't} \\ \text{b'd/t} \end{bmatrix} \text{t}_{\text{n}}$	md _n	V:d _n
k:	Vg/ʃ		i:/a:/Λ:/o:/u:/g/ʃ		Vŋg/gʃ		V:g/ʃ	Vŋg/gʃ	Vb'g/ʃ	mg	V:g/ʃ
c:	Vd ₃ /tʃ		$\text{V} \begin{bmatrix} \text{k'} \\ \text{g'} \end{bmatrix} \text{tʃ/d}_3^2$		$\text{V} \begin{bmatrix} \text{ŋ} \\ \text{p} \end{bmatrix} \text{d}_3$	ā:d ₃	V:d ₃	Vp ₃ d ₃	$\text{V} \begin{bmatrix} \text{p'tʃ} \\ \text{b'}/\beta \text{d}_3 \end{bmatrix}$	md ₃	V:d ₃
tr:	$\text{V} \begin{bmatrix} \text{dr/tr} \\ \text{dr} \end{bmatrix}$	V:dr	$\begin{bmatrix} \text{Vg'tr/dr} \\ \text{V:dr} \end{bmatrix}$	Vk'tr	$\text{V} \begin{bmatrix} \text{ŋ} \\ \text{n} \end{bmatrix} \text{dr}$		$\text{V:} \begin{bmatrix} \text{dr/tr} \\ \text{dr} \end{bmatrix}$	Vndr	$\text{V} \begin{bmatrix} \text{p'tr} \\ \text{b'dr} \end{bmatrix}$	mdr	$\text{V:} \begin{bmatrix} \text{dr/tr} \\ \text{dr} \end{bmatrix}$
ts:	Vdz	V:dz	Vg'z		$\text{V} \begin{bmatrix} \text{ŋ} \\ \text{n} \end{bmatrix} \text{z}$		V:dz	Vnz	Vb'z	mz	V:dz
n:	Vn/p/ŋ		V:N	VŋN	$\tilde{\text{V}}:\text{N}$		V:N	$\tilde{\text{V}}:\text{N}$	VmN	mN	-
m:	Vm		V:m	Vŋm	$\tilde{\text{V}}:\text{m}$		V:m	$\tilde{\text{V}}:\text{m}$	V(m)m	m	V:m
l:	Vl/r/j/w		V:L	$\text{V} \begin{bmatrix} \text{g'} \\ \text{ɣ} \end{bmatrix} \text{L}$	$\tilde{\text{V}}:\text{L}$		$\tilde{\text{V}}:\text{L}$	$\tilde{\text{V}}:\text{L}$	$\text{V} \begin{bmatrix} \text{b'} \\ \beta \end{bmatrix} \text{L}$	mL	V:L
s:	Vs/ʃ		$\begin{bmatrix} \text{Vg'}/\text{ɣs} \\ \text{V:S} \end{bmatrix}$	$\text{V} \begin{bmatrix} \text{k'} \\ \text{x} \end{bmatrix} \text{S}$	$\tilde{\text{V}}:\text{S}$		V:S	$\tilde{\text{V}}:\text{S}$	$\text{V} \begin{bmatrix} \text{p'} \\ \text{b'} \end{bmatrix} \text{S}$	mS	V:S
q:	V: VV		Vg		VŋV			$\tilde{\text{V}}:\text{V}$			v/a/v/ə/v

¹ But ?u:ta dbugs-thag
² tʃ only in careful utterances.

Notes on the two tables.

i. Where the exponent of *z* differs as regards the vowel quality or duration of the first Syllable of the Piece in accordance with differences in Tempo, it is necessary to indicate the variant features in the separate columns *st* (Slow-Tempo only), and *ft* (Fast-Tempo only). Elsewhere the appropriate range of vowels and their duration are summarized as *V* or as *V:*. These ranges, for which there was not room in the tables, are:

z: -: ɿ ɛ ʌ ɔ ʌ

l: i: e: ɛ: ø: y:

g: i: ʌ: ʌ: ɔ: ɔ: u: ɿ: ɿ: ɿ: ɿ: ɿ:

st: ɿ ʌ ɔ ʌ

ŋ: ɿ ʌ ʌ ɔ ʌ, ɿ: ʌ: ʌ: ɔ: ɔ:;

d: i: e: ɛ: ø: y:

n: ɿ ɛ ø ʏ

ɿ: ɛ: ø: ʏ:

b: ɿ (ɛ) ʌ ɔ ʌ

ft: ɔ: u:

m: ɿ ʌ ʌ ɔ ʌ;

r: i: e: ɛ: ø: y: ʌ: ʌ: ɔ: ɔ: u:

ft: ɿ ɛ ø ʏ ʌ ɔ ʌ

ii. The letters *N*, *L*, and *S* are used to summarize the initial consonants shown in the left-hand (*z*-Piece) column of the table: *n* and *p* (and *ŋ* in table ii), *l*, *r*, and *j* (and *w* in table ii), and *s* and *ʃ* (and *ʔ* in table i) respectively.

iii. For *p* Juncture and *s* Juncture the exponents appropriate to the *Vb.-Complement + Particle* and the *Particle + Particle* types of Piece are different from

those given in the table (table i) and could not be included because of lack of space; they are:

	g Piece	ŋ Piece	d Piece	n Piece
p Juncture:	ag	o/əŋ	ɪ/əβ	ɪm
s Juncture:			əʃ	ɪʃ

The exponents of the Initial term z are as follows.

1. p Juncture

In the examples that are also p-Piece the exponents of z in the Verb + Particle Word and (Verbal) Particle + Particle Word are sufficiently different from those drawn from the (disyllabic) Noun Piece to warrant two separate statements. That for the Verb + Particle and Particle + Particle types of Word is given first.

z: (vow. + long/short dur.), (plos. + lab.)

g: Main Vb. + Part.

(ɪ/a/p/ə + short dur.), (occ. + vel. + voice), (plos. + lab. + voice) (st)

(ɪ/a/o/u + long dur.), (plos. + {lab.)
(vel.) (ft)

Vb. Comp. + Part., Part. + Part.

(ə + short dur), (plos. + vel. + voice)

ŋ: Main Vb. + Part.

(ŋ/a/v/ɔ + short dur.), (nas. + $\left\{ \begin{array}{l} \text{vel.}, \\ \text{lab.} \end{array} \right\} \text{ (ft)}, \left. \vphantom{\left\{ \begin{array}{l} \text{vel.}, \\ \text{lab.} \end{array} \right\}} \right\} \text{ (plos. + lab.)}$

(ŋ/a/v/ɔ + short dur.), (nas. + vel.), vow. (ft)

Vb. Comp. + Part., Part. + Part.

(v/ɔ + short dur.), (nas. + vel.), vow.

d: Main Vb. + Part.

(vow. + long dur.), (plos. + lab.)

Vb. Comp. + Part., Part. + Part.

(ɗ/ɛ/ɔ + short dur.), (lab. + fric.)

n: (vow. + short dur.), (nas. + lab.), (lab. + plos.)

b: (ɗ/ɛ/v/ɔ + short dur.), (lab. + plos.),

m: (lab. + nas.), (lab. + plos.)

r: (ɗ/e/ɛ/y/ɔ/a/u/ɔ + long dur.), (plos. + lab.)

(ɗ/ɛ/y/ɔ/a/ɔ/v + short dur.), (apico-alv. + fric.) (ft).

Verb + Particle-Piece and Particle + Particle Piece examples have already been given on pp. 320-6, and are not, therefore, repeated here.

The Verbal Particle Syllables pa/ba/ga/nga/ra (Past), pa/ga/nga (Special, and Corroborative, Interrogative), and pas/gas/ngas/ras can be exemplified in the z-Initial Piece as second Syllable, and are therefore classified as z-Piece.

The slightly different exponents of *z* in the
(disyllabic) Noun Piece are, by type of Quality Piece:

z: (vow. + short dur.), (plos. + lab.)

g: (*ɿ/a/ʌ/p/ɔ* + short dur.), (vel. + {occ.), (lab. + plos.)
plos.) (ft)¹

ŋ: (*ɿ/a/ʌ/p/ɔ* + short dur.), (nas. + {vel.),
lab.)(ft), } (lab. + plos.)

d: (vow. + long dur.), (plos. + lab.)

n: (vow. + short dur.), (lab. + nas.), (lab. + plos.)

b: (vow. + short dur.), (lab. + plos.)

m: (vow. + short dur.), (lab. + nas.), (lab. + plos.)

r: (*ɪ/e/ɛ/y/ø/a/ʌ/ɔ/o/u* + long dur.), (lab. + plos.)

e.g.

<i>z</i> : <u>grwa-pa</u>	<i>tʁabə</i>	'monk'
<u>thugs-phan</u>	<i>thəbɛ:</i>	'advantage'
<u>phyag-sbag</u>	<i>tʃhaba</i>	'domino'
<i>g</i> : <u>lag-pa</u>	<i>laqbə</i>	'hand'
<u>dmag-dpon</u>	<i>magbɔ:/magɔ:</i> ²	'officer'

¹Confined to Pieces in which the second Syllable is a w-Piece Syllable (212132112), and therefore characterized by rounding.

²Also, in a careful style, *makpɔ:*.

ŋ: <u>tshong-dpon</u>	<u>tshəŋbɔ̃:/tshəmbɔ̃:</u> (ft)	'merchant'
<u>khang-pa</u>	<u>khaŋpə</u>	'house'
d: <u>'bras-spung</u>	<u>dre:bɔ̃:</u>	'Drepung'
<u>gsol-phogs</u>	<u>sə:bɔ̃:</u>	'salary'
n: <u>dbyin-bod</u>	(<u>ʔumby:</u>) <u>mtshun-lam</u>	'Anglo-Tibetan relations' (G. and R.)
<u>spyan-lpags</u>	<u>tʃəmbɑ̃:</u>	'eye-lid'
b: <u>chibs-dpon</u>	<u>tʃhɪbɣ̃:</u>	'head groom'
<u>zhabs-pus</u>	<u>ʃɤbi:</u>	'knee'
m: <u>gzim-dpon</u>	<u>sɪmbɣ̃:</u>	'servant'
<u>zam-pa</u>	<u>sambə</u>	'bridge'
r: <u>char-phi</u>	<u>tʃhʌ:bi:</u>	'water-proof'
<u>'phur-'phur</u>	(<u>phu:bu:</u>) <u>byed-pa</u>	'groom', 'rub'

The following Verbs can be classified as z-Initial on the basis of the features characterizing them in the disyllabic-Noun Piece: spung 'pile up', phan 'profitable' phebs 'come'. Only these three are exemplified in the (disyllabic) p Piece in the thesis material. The number of z-Initial and p-Juncture Noun lexical items is too great for listing here; but the above examples show that it includes pa, sbag, dpon, phogs, bod, lpags, pug, phi, and phur.

The respects in which the exponents drawn from the disyllabic-Noun differ from those drawn from the Verbal

Phrase are:

i. g: the type of exponent ɪ/a/ʌ/v/ʌg' b resembles the Slow-Tempo exponent of the Verbal Phrase, both in vowel quality and duration, and in its velar occlusion. Such a combination of features as one of the vowels ɪ, a, ʌ, and u , long duration, and velar plosion is peculiar to the Verbal-Phrase statement, while one of the vowels ɪ/a/v/ʌ combined with short vowel duration and followed by velar plosion is peculiar to the disyllabic Noun.

ii. ŋ: nothing corresponding to the ft exponent VŋV of the Verbal Phrase

iii. n: no examples of nasality (m) as a Fast-Tempo alternative to plosion (b)

iv. b: no examples of friction (β) as part of the exponency.

v. r: nothing corresponding to the ft exponent ɪ/ɛ/y/ə/a/v/ʌr.

ii t Juncture

z: (vow. + long/short dur.), (plos. + dent. + voice/voicels.)¹

¹Only voice has been observed in Verbal-Phrase examples.

g: Main Vb. + Part., Part. + Part.

(1/a/ʌ/o/o + long dur.), (plos. + dent. + voice)

disyll. Noun

(1/a/ʌ/o/o + short dur.), (vel. + occ. + {
 voicels.), (dent. +
 plos. +
 voicels.)
 voice), (dent. +
 plos. +
 voice/
 voicels.)¹

ŋ: (1/a/ʌ/o/o + short dur.), (nas. + {
 vel),
 (dent.)
 (ft),
 (plos. + dent. + voice)

d: (vow. + long dur.), (plos. + dent.) + voice/voicels.)² voice)

n: (vow. + short dur.), (nas. + dent.), (plos. + dent. + voice)

b: (1/x/o/v + short dur.), (lab. + occ. + {
 voicels.), (dent. +
 plos. +
 voicels.)
 voice), (dent. +
 plos. +
 voice/
 voicels.)

¹ fu:dɛ: bzhugs-gdan 'seat', 'stay' (not *ʃagdɛ:) appears to be an exception.

² Only voice has been observed in Verbal-Phrase examples.

m: (nas. + lab.), (plos. + dent. + voice)

r: (i/e/ɛ/y/ø/a/ʌ/u/ɔ/o + long dur.), (plos. + dent. + voice)

e.g.

Vb. + Part., Part. + Part.

- z: di byed-thabs (tʃhɪdʌp) yod-ba-ma-red 'there is no help for it' (Bell)
- da nga-'tsho 'gro-do (drɔdɔ) 'let's go now'
- g: bzhugs-gdan 'jag-dus (dʒʌ:dy:) 'when you were living'
- yi-ge klog-dus (lo:dy:) 'when you read'
- ŋ: mtsong-ta (thɔŋdɛ) mtsong-byung te 'I did indeed see him, but - - -' (Bell)
- sgra'i yong-bltang (jɔŋdʌ:) 'articulation'
- bka'-smon gsung-dus (sɔndy:) sgang-ni 'when we talk'
- d: skad-cha bshad-bstang (ʃɛ:dʌ:) 'the way they speak'
- bsdad-dus (de:dy:) 'when I lived at'
- n: dug-logs gon-bstang (khɔndʌ:) 'the way they wear their clothes'
- thon-dus (thyndy:) 'when I went out'
- b: sgra lab-btang (lɔbdʌ:) 'pronunciation'
- m: zin-dus (sɪmdy:) 'when you catch'
- r: mjal-dus (dʒe:dy:) 'when I met'
- ster-da (te:dʌ) 'please give me' (Bell).

The particle Syllables thabs, do, dus, stang (bstang, bltang),¹ dang/da (Imp.), and dus (Nomzg.) are classified as t-Piece.

(disyllab. Noun)

z: <u>kha-btags</u>	khada	scarf
<u>tshe-thar-la</u>	(tsheta:-) <u>btang-ba</u>	let live (animals)
<u>byas-'thus</u>	tʃhe:dy:	permissible
g: <u>mdzub-thel</u>	zækti:	thumb-print
<u>'jig-rten</u>	dʒɪgtɛ:	world
<u>klog-deb</u>	lɒgdɪp	reading-book
ŋ: <u>shing-sdong</u>	ʃɪŋdʒ:/ʃɪŋdʒ:	tree
<u>thag ring-thing</u>	rɪŋdʒ:/rɪŋdʒ:	distance
d: <u>gsol-thab</u>	sy:dʒp/sy:tʒp	oven
<u>skyed-gtong</u>	ce:dʒ:	lending for interest
n: <u>ston-thog</u>	tɒndɔ:	harvest
<u>btsan-dug</u>	tsɛndu:	aconite
b: <u>yob-thag</u>	ʃɔptɑ:	stirrup leather
<u>hab-thop</u>	hɔbdɔ:	scramble

¹Though generally voiced initially one or two instances have been observed in which stang (bstang, bltang) was voiceless, e.g. byed-ltang tʃhɛtɑ:, shod-bstang ʃɔ:tɑ:, shod-dang [sic] ʃɔ:dɑ:, gnang-bstang [-gi] nɑŋdɑŋɿ.

m: <u>rnam-thar</u>	namda:	biography
r: <u>char-thigs</u>	tʃhʌ:di:	raindrops
<u>mjal-dar</u>	dʒɛ:da:	scarf

The following are a selection from the lexical items that can be classified as z-Initial: btags (of kha-btags, but see also b-Initial t Juncture, 21213134,1), rten, tag, thar, thel, thung, thab, thog, thob, thigs, 'thus, dar, deb, dug, sdong, sder; gtong/btang, thar and thob are the only Verbs that can be classified as zt.

The respects in which zt exponents drawn from the Verbal-Phrase Piece differ from those drawn from the disyllabic-Noun Piece are:

- i. g, d, b Quality Piece: voicelessness (t) is not an initial feature of the second Syllable;
- ii. g, b Quality Piece: voicelessness (k' p') is not a final feature of the first Syllable;
- iii. short vowel duration with appropriate vowel quality (ɪ a ʌ ɔ) followed by occlusion (k' g') cannot be a final feature of the first Syllable.

iii. k

z: (vow. + short dur.), $\left\{ \begin{array}{l} (\text{vel.} + \text{plos./fric. (ft)}) \\ (\text{pal.} + \text{plos.}) \end{array} \right.$

g: (i/a/ʌ/u/ɔ/o + long dur.), (plos. + vel./pal.)

ŋ: (ɭ/a/ʌ/ɔ/p + short dur.), (vel. + nas.), (plos. + vel./prev.)

d: (vow. + long dur.), (plos. + vel./pal.)

n: (vow. + short dur.), (vel. + nas.), (plos. + vel./prev.)

b: i. (v/s/w/p + short dur.), (lab. + voice + {occ.},
fric.) (ft),
(voice + {vel. + plos./fric.(ft))
pal. + plos.)

ii. (u/o + long dur.), (vel. + plos. (ft))

m: (nas. + {lab.), (plos. + vel./pal.)
{vel.) (ft), (vel. + plos.)

r: (i/e/ε/y/ø/a/ʌ/u/ɔ/o + long dur.), (plos. + vel./pal.)

(The b-Piece exponent at (ii) applies only to the Verbal Phrase)

Examples have already been given for Vb. + Part. and Part. + Part. Words (pp. **326-8**), and are not repeated here. The Particles gi/gyi/kyi, rgyu, dgos/dgo/go, and ka (Final, Future-Interrogative) are classified as k-Piece.

The following are examples from the disyllabic-Noun Piece, by type of Quality Piece (z, g, ŋ, etc.)

z: <u>da-ga</u> (<u>thage</u>) <u>rang red</u>	it certainly is
<u>spyi-khyab</u> (<u>tʃi:ɣɿp</u>) <u>sku-gzhogs-kyi</u> <u>red</u>	it is from the British Trade Agent.
g: <u>yig-kog</u> <u>ji:go:</u>	envelope
<u>rigs-rgyud</u> <u>ri:gjy:</u>	ancestry
ŋ: <u>thang-ka</u> <u>thane</u>	painting
<u>yang-skyar</u> (<u>jangja:</u>) <u>gsung-roq snang</u>	please say it again
d: <u>mchod-khang</u> <u>tʃhø:gā:</u>	temple
<u>skad-bsgyur</u> <u>ce:ɣu:</u>	interpreter
n: <u>sman-khang</u> <u>mɛŋgā:</u>	hospital
<u>mgon-skyabs</u> <u>gyŋgɣɿp</u>	protection
b: <u>rkub-kyag</u> (<u>kəbja:</u>) <u>cig khyer shog</u>	bring me a chair
<u>chibs-sga</u> <u>tʃhɪbge/tʃhɪβge</u>	saddle
m: <u>gzim-khang</u> <u>sumgā:</u>	room
<u>gzim-khyi</u> <u>simgi</u>	dog
r: <u>bar-bskor</u> <u>pha:gə:</u>	Inner Circle [Lhasa]
<u>'khar-rgyug</u> <u>khʌ:ɣu:</u>	walking stick.

These examples show that the following, among other lexical items, can be classified as k-Piece:

ka, kog, kyag, skyar, skyabs, bskor; khang, khyab, khyi; ga, ge, sga, rgyud, rgyug, bsgyur; the only Verbs to be so classified in the available material are: skyabs,

skye, skyel/bskyal, bskor; khyab, mkhyen, khyud;
dgo/dgos, rgyag, rgyas, rgyugs, bsgyur.

The only respects in which the exponents of *k* that have been observed for the Verb + Particle Piece differ from those observed for the disyllabic-Noun Piece are that they include: (i) *b* Quality Piece: the Fast-Tempo alternative (friction + labiality), (friction + velarity) (β γ); the Fast-Tempo alternative (u/o + long duration), (velarity + plosion); (ii) *m* Quality Piece: the Fast-Tempo alternative (velarity + nasality), (velarity + plosion).

iv. c

z: (vow. + long/short dur.), (dorso-pal. + voice + $\left\{ \begin{array}{l} \text{aff.} \\ \text{fric.} \end{array} \right\}^1$) (ft)

g: i. (i/a/u/o + long dur.), (dorso-pal. + aff.)

ii. (ɿ/a/ʌ/ɔ/v + short dur.), (vel. + occ. + voice/voicels.), (dorso.-pal. + aff. + voice/voicels.)

η : η : (ɿ/a/ɔ/v + short dur.) { nas. } + $\left\{ \begin{array}{l} \text{vel.}, \\ \text{pal.} \end{array} \right\}$ (dorso-pal. + aff.) (ft),

(ɿ/a/ɔ/o + long dur. + nas.), (dorso-pal. + aff.) (ft)

¹Voicelessness has been observed in a very few instances in a careful style.

d: (vow. + long dur.), (dorso-pal. + aff.)

n: (vow. + short dur.), (nas. + dorso-pal.), (dorso-pal.
+ aff.)

b: (~~ɸ~~/ɤ/ɔ/ɒ + short dur.), (lab. + {occ./fric. + voice},
occ. + voicels.) (st),

(dorso-pal. + aff. + $\begin{cases} \text{voice} \\ \text{voicels.} \end{cases}$)

m: (nas. + lab.), (dorso-pal. + aff.)

r: (i/e/ɛ/y/ø/a/u/ɔ + long dur.), (dorso-pal. + aff.);

(the g-Piece exponent at (i) applies to the Verbal Phrase only, and the g-Piece at (ii) to the disyllabic Noun only)

e.g.

Vb. + Part.

z: sku mnyel-po ma-byung-ngas (madʒəŋ-) 'was it not tiring'

'phye-byas (tʃhɛdʒə) 'having opened'

zhus-byas (ʃy:ʒe) 'having asked for'

g: sems sduḡ-byung (du: dʒɔ̌) 'I was sorry'

၇: mtshong-ta mtshong-byung (thongdzö) 'I certainly saw'
(Bell)

'da'i chibs-bsgyur gnang-byung-byung-
ngas (napdzon-) 'did he come here'

phyag-phebs gnang-byung (nã:dʒɔ̃) 'you are very welcome'

d: <u>lha-sar</u> <u>bslebs-byung</u> (le:d ₃ ʒ)	'I reached Lhasa'
<u>nga-la</u> <u>nyes-byung</u> (ne:d ₃ ʒ)	'he gave me a thrashing'
n: <u>mkhyen-byung-ngas</u> (kʲɛ̃pnd ₃ ʌŋ-)	'did you know'
b: <u>nga-la</u> <u>lab-byung</u> (lɤb'd ₃ ʒ)	'he spoke to me'
m: <u>bsam-byung</u> (samd ₃ ʒ)	'I thought'
r: 'khyer-byas (chi:d ₃ ʒe)	'having brought'
<u>yi-ge</u> <u>cig</u> 'byor-byung	'I received a letter'

The Verb Complement byung, and the Verbal Particles byung and byas, are classified as c-Piece.

The following examples from the disyllabic-Noun Piece:

z: <u>sku-bcar</u> (kod ₃ ɑ:) <u>zhu-gi-yin</u>	'I shall visit'
<u>bka'-chad</u> kəd ₃ ɛ:/katʃɛ:	punishment
g: <u>dmag-sbyong</u> magd ₃ ʒ:	drill
<u>lhag-chad</u> laɣtʃɛ:/laktʃɛ:	balance
ŋ: <u>tshong-pa'i</u> rkang-rjes kənd ₃ ʒe/ kɑ:d ₃ i/kənd ₃ i	footprints of traders (Bell)
<u>yang-ljid</u> jʌnd ₃ i:	weighty
d: <u>gsol-ja</u> sɔ:d ₃ ʒe	tea
'bras-spyi (dre:d ₃ i) <u>blon-chen</u>	Political Officer in Sikkim.
n: <u>blon-chen</u> lɛ̃nd ₃ ɛ:)	minister
<u>snyan-byil</u> nɛ̃nd ₃ ɿ:	long ear-ring
<u>rgun-chang</u> gɿnd ₃ ɑ:/gɿ:d ₃ ɑ:	wine

b: <u>slob-sbyong</u> <u>lɤbdʒɔ̃:/lɤp dʒɔ̃:</u>	practice in learning
<u>zhabs-phyi</u> (<u>ʃɤbdʒɪ</u>) <u>zhus mchog</u>	I must serve you
m: <u>sems-can</u> <u>sɪmdʒɛ:</u>	living creature
<u>gzim-spyod</u> <u>sɪmdʒy:</u>	lavatory
r: <u>gsal-byed</u> (<u>sɛ:dʒɪ</u>) <u>sum-cu</u>	The Thirty Initials
<u>phar-phyogs-la</u> <u>pha:dʒɔ̃:-</u>	over there

From these examples it will be seen that the lexical items bcar, can, chad, chen, ia, rjes, ljid, spyi, spyod, phyi, phyogs, byil, byed, sbyong, among others, can be classified as z-Piece; the only Verbs in the available material that are classifiable as z-Piece are: bcar, chad, byed, and sbyong/sbyangs (for 'phyid see p. 486).

The zɤ exponents drawn from the disyllabic-Noun Piece that differ from those drawn from Verb + Particle Piece are: (i) voicelessness (tʃ) as an initial feature of the second Syllable in the z, g, and b types of Quality Piece in careful utterances; (ii) voicelessness (k' p') as a final feature of the first Syllable in the g and b types of Quality Piece in careful utterances; (iii) (velarity + occlusion) (k' g') as a final feature of the first Syllable in the g Quality Piece.

v. tr

z: (vow. + long/short dur.), (alv. + aff. + apic.
+ voice/voicels.)

g: i. (vow. + long dur.), (alv. + aff. + voice)(ft)

ii. (vow. + short dur.), (vel. + occ. + voice),
(alv. + aff. + apic. + voice/voicels.)

iii. {vow. + short dur.), (vel. + occ. + voicels.)
(alv. + aff. + apic. + voicels.)(st)

ŋ: (l/a/ʌ/ɔ/v + short dur.), (nas. + { (vel.),
(alv.)(ft), } (alv. + aff. +
apic. + voice)

d: (vow. + long dur.), (alv. + aff. + apic. + voice/
voicels.)

n: (vow. + short dur.), (alv. + nas. + apic.), (alv. + aff. +
apic. + voice)

b: (l/ɜ/ɔ/v + short dur.), (lab. + occ. + { (voicels.), (alv. +
aff. + apic. + voicels.
voice), (alv. + aff. (st))
+ apic. + voice)

m: (lab. + nas.), (alv. + aff. + apic. + voice)

r: (i/e/ɛ/y/ø/a/ʌ/u/ɔ/o + long dur.),
(alv. + aff. + apic. + {voicels)(st)
voice)

The following are examples in which the second Syllable is gro/'gro (this Verbal Particle is confined to the d and the n types of Quality Piece and to the

Verb Complement + Particle or the Particle + Particle,
grammatical type of Piece, 21213112):

- d: phog-gi-mad-'gro (-mɛ:dro) 'he is afraid he
might catch'
- n: khong min-'gro (mɛndro) 'not him, is it'
- bsdad-kyi-yin-'gro (-jɪndro) 'he will probably
stay' (Bell)

The Verbal Particle gro/'gro is the only Verbal
Particle to be classified as tr-Piece.

The following are tr-Piece examples from the
disyllabic-Noun Piece:

- z: sho-khral ʃɔtrɛ:/ʃɔdrɛ: customs duty
- dbu-skra ʔɔdrɛ hair
- zas-grib se:drɪp unclean food
- g: rdog-khres dɔ:drɛ:/dɔgdri/
dɔktre/ɪ bundle
- tshogs-khro tshɔ:drɔ large bronze cauldron
- tsog-grib tsɔgdri defilement from dirt
- bzhugs-khri ʃɔgtri throne
- shog-grangs ʃɔktrɛ: page number
- ang-grangs ʔɔndrɛ: number
- chang-khral tʃhɔndrɛ:/tʃhɔndrɛ: beer tax

d:	<u>chos-khrims</u>	<u>tʃhy:trɪm</u> / <u>tʃhy:drɪm</u>	religious law
	<u>gsol-krum</u>	<u>sy:drɪm</u>	meat
n:	<u>bzhon-drel</u>	<u>ʃɛndre:</u>	riding mule
	<u>bdun-phrag</u>	<u>dyndra</u>	week
b:	<u>ltab-gri</u>	<u>tʃptri</u>	clasp-knife
	<u>chibs-srab</u>	<u>tʃhɪbdrɛp</u>	bridle
m:	<u>gnam-gru</u>	<u>namdra</u>	aeroplane
	<u>rten-'brel</u>	<u>tɛndre(:)</u> ¹	luck
r:	<u>gser-khri</u>	<u>si:tri</u> / <u>si:drɪ</u>	golden throne
	<u>bsil-grib</u>	<u>si:drɪp</u>	shade

From this list of examples the following can be classified as z-Piece:

dkrum, skra, khral, khres, khro, khri, khriims,
grib, grangs, gri, gru, drel, phrag, 'brel,
srab.

Verbs similarly classified as z-Piece in the available material comprise:

skrag, grub, sgrig, drag, dran, sreg.²

In the Verbal Phrase examples of the tr Piece are limited to the z, d, and n types of Quality Piece

¹ Also tɛndre/ɪ.

² Because of me-sreg (mɛdra) gtong-ba to burn, but cf. also sbyin-sreg dʒʈ:se: burnt offering. Cf. also bskregs-nas trɔ:nɛ having burnt.

Both the tr and the ts Piece have alveolarity as a localization feature, but the area of the alveolar ridge is not the same. It is not surprising that it should not be; for the feature coronality implies a larger area of approximation and of actual contact than does apicality. The area of contact for coronality extends considerably further forward than that of apicality.

Examples of the ts Juncture Piece in which the second Syllable of the Piece is the Verbal Particle tsang have been given above (pp. 329-30).

The Verbal Particle tsang and the Nominal Particle rtsis are classified as ts -Piece.

The following examples of the ts Piece are from disyllabic Nouns:

z: <u>ljags-rtsis</u>	$\text{dz}^{\wedge}\text{dzi}:$	accounts
<u>ljags-tshwa</u>	$\text{dz}^{\wedge}\text{dze}$	salt
g: <u>mig-btsum</u>	$\text{m}^{\wedge}\text{gzom}$	wink
<u>lug-rdzi</u>	$\text{l}^{\wedge}\text{gzi}$	shepherd
ŋ: <u>rgyal-rtse</u>	$\text{ɣ}^{\wedge}\text{ŋzi}$	Gyantse
<u>chang-rtsi</u>	$\text{tʃh}^{\wedge}\text{ŋzi}/\text{tʃh}^{\wedge}\text{ŋzi}$	yeast
d: <u>sku-tshad</u>	$\text{k}^{\wedge}\text{dze}:$	heat
<u>gzal-rdzun</u>	$\text{ʃe}^{\wedge}\text{dz}^{\wedge}:$	lie
n: <u>skyin-tshab</u>	$\text{c}^{\wedge}\text{tinz}^{\wedge}\text{p}$	repayment of a loan
<u>gnyen-tshan</u>	$\text{p}^{\wedge}\text{enz}^{\wedge}:$	relative

b: <u>khāb-rtse</u>	<u>khəbzi</u>	needle point
m: <u>'dam-rdzab</u>	<u>dāmzəp</u>	swamp
<u>'jam-rtsub</u>	<u>dʒāmzu:</u>	degree of softness

The lexical items rtsis, rtse, rtsi, rtsub, tshwa, tshad, tshab, tshan, rdzi, rdzun, and rdzab in these examples are among those classifiable as t̂s-Piece.

In the available material the Verbs that are classifiable in this way as t̂s-Piece are: btsum, rtsis, rtse, rtsom, brtse, tshong.

The t̂s exponents in the Verbal Phrase differ from those of the disyllabic-Noun Piece in the following respects: (i) g Piece, V:dz v. Vgz; (ii) ŋ Piece, Fast-Tempo alternative Ṽ:z, and absence of the Fast-Tempo alternative Vnz.

vii. n

z: (vow. + long/short dur.), (nas. + non-lab.)(n/p/ŋ)

g: (i/a/ʌ/u/ɔ/o + long dur.), (nas. + non-lab.)

(ɿ/a/ɔ/p + short dur.), (vel. + voice + $\left. \begin{matrix} \text{occ.} \\ \text{nas.} \end{matrix} \right\} \left. \begin{matrix} \text{nas.} + \text{non-lab.} \\ \text{lab.} \end{matrix} \right) (\text{st})$

ŋ: (ɿ/a/ʌ/ɔ/ɔ + long dur. + nas.), (nas. + non-lab.)¹

d: (vow. + long dur.), (nas. + non-lab.)

¹One or two examples of the sequence (ɿ/a/ʌ/ɔ/p + short dur.), (vel. + nas.), nasality, e.g. mdang-nub dʌŋnɔp, nang-nub nʌŋnɔp, smýung-gnas pɔŋnɛ:, have been observed, but are taken to be Reading-Style pronunciations.

n: (vow. + long dur. + nas.), (nas. + non-lab.)

b: (t/ʃ/q/v + short dur.), (lab. + voice + $\left\{ \begin{array}{l} \text{occ.) (st),} \\ \text{nas.),} \end{array} \right\}$ (nas. + non-lab.)

m: (nas. + lab.), (nas. + non-lab.)

r: (i/e/ɛ/y/ø/a/ʌ/u/o/ɔ + long dur.), (nas. + non-lab.)

e.g.

Vb. + Particle. and Part. + Part.

z: zer-na-ni (-nəni)

as for if you say

'byor-mad-pa-no (-bəno)

have you not received

g: chibs-rags bsgrigs-nas (drɪgne)

in single file (Bell)

glog 'khyugs-nas (kʲɔgne)

when lightning flashed

ŋ: ga-bar chibs-bsgyur gnang-nyan
(nā:ŋɛ:) vin-pa-no

where are you going

nor-song-na (-sɔ:ne)

if I made a mistake

d: bsad-myong-ngas (sɛ:ŋɔŋ-)

have you ever killed

ga-bar bzhugs-gdan 'jag-] kyi-yod-na
(-jɔ:ne)

where does he stay, I wonder

n: rkang-skor yin-na'i (jĩ:na:)

is it foot-operated,

par skyon-ni (cə:ni)

or - - -
having printed

b: dbyin-[skad] slab-nyan (lɔbpɛ:)

people teaching

khebs-na (khəmmə)

English
if it should spread

m: shums-nas (ʃɔmmə)

having cried

rku-ma - - - zin-mkhan (sɪmpɛ:)
de-tsho

the men who caught
the thief (Bell)

r: dar-na'i (tha:ne:)

even if it should
spread

r: [bsgrigs tshar]-ni (tsho:nɿ)

'when you have
finished setting
it up'

The Verbal Particles na (Conditional, Emphatic, Special-Interrogative, Alternative-Interrogative), no, myong/nyung, and nas/ni, the Nominalizing Particle nyan/mkhan, and the Phrase Particle ni, are classified as n-Piece.

disyllabic Noun

z: sku-ngo (kɔŋɔ:) chibs-bsgyur
gnang-byung

you are very welcome,
sir.

thugs-nyar (thɔpɔ:) gnang-rog
gnang

please take care of

g: phyug-nad tʃhɔŋɛ:

cattle disease

snag-smyug nɛ:pu:

pen and ink

ŋ: sang-nyin sɛ:ɲi:

tomorrow

mang-nyung mɛ:ɲɔ:

quantity

d: lnga-bcu nga-lnga ɲɛ:ŋɔ

fifty five

dnagul-nag ɲy:na

sweat

n: snyan-ngag ɲɛ:ŋa

poetry

dben-gnas ʔɛ:ɲɛ:

solitary place

b: rgyab-snon ɲɛ:ɲɔ:

reinforcements

grib-nag tɲɛ:ɲɔ:

[? dark shadow]

m: gtam-snyan tamɛ:

good news

r: 'khar-rnga **kho:ŋə**

drum

gsar-rnying **sʌ:ŋʌ:**

new and old, how old

The following lexical items among others can therefore be classified as n-Piece: ngo, lnga, ngag, rnga; nyar, nyin, nyung, snyes, snyan, rnying, smyug; nub, nad, gnas, snon; Verb lexical items similarly classifiable as n-Piece comprise: bsngal, nyes, and nub.

The respects in which the exponents drawn from the disyllabic Noun differ from those of the Verb + Particle and Particle + Particle Piece are: (i) in the z, ŋ, d, and n types of Quality Piece, velar nasality as an initial feature of the second Syllable (this feature is not, however, common; and it is not, therefore, surprising that it should be absent from the Verbal-Phrase types of Piece); (ii) (g Piece) absence of (velarity + occlusion) (**g'**) as a final feature of the first Syllable in Slow-Tempo utterances; (iii) absence of (labiality + occlusion) (**b'**) as a final feature of the first Syllable.

viii. m

z: (vow. + long/short dur.), (nas. + lab.)

g: (vow. + long dur.), (nas. + lab.)

(vow. + short dur.), (nas. + vel.), (nas. + lab.)(st)

- ŋ: (vow. + long dur. + nas.), (nas. + lab.)
 d: (vow. + long dur.), (nas. + lab.)
 n: (vow. + long dur. + nas.), (nas. + lab.)
 b: (vow. + short dur.), (nas. + lab.), (nas. + lab.)
 (vow. + short dur.), (occ. + lab.), (nas. + lab.) (st)
 (vow. + short dur.), (nas. + lab.), (vow.)(ft)
 m: (vow. + short dur.), (nas. + lab.), (nas. + lab.)
 (vow. + short dur.), (nas. + lab.), (vow.)(ft)
 r: (vow. + long dur.), (nas. + lab.).

e.g.

Vb. + Part. and Part. + Part.

- z: 'brug-pa yin-na-min (-**nomɛ:**) 'whether or not
 she is Bhutanese'
 yag-po bzos-mi-'dug (**sɔ:mi-**) 'it has not been
 well made'
 g: kā-sbug-la bzhugs-mus (**fu:my:**) red 'he is living at
 Kalimpong'
 ŋ: mt hong-ma-nyung (**thɔ:me-**) 'I have never seen'
 phyag-las gnang-mus (**nʌ:my:**) 'he is working'
 d: thag mchod-ma-song (**tʃhɔ:ma-**) 'it was not decided'
 n: phyin-mi-yong-ngas (**tʃhɪ:me-**) 'would they not go'
 b: lab-ma-song (**lɔbma-/lɔmma-**) 'he did not speak'
 m: zin-ma-song (**simma-**) 'he did not catch it'
 r: phyag-ris 'byor-med- (**dʒɔ:me:-**) 'have you not received
 pa-no a letter'
 mjal-ma-byung (**dʒɛ:me-**) 'I did not meet him'

On the basis of the above examples the Verbal Particles ma/mi, min, and med/mad, and the Nominalizing Particle mus, are classified as m-Piece.

Disyllabic Noun

z: <u>rgya-mi</u>	gjamɿ	Chinaman
<u>a-ma</u>	(ʔama) lags	mother
g: <u>phyogs-mi</u>	tʃho:mi	foreigner
<u>dmag-mi</u>	ma:mi/maŋmi	soldier
<u>gza' mig-dmar</u>	miɣma:	Tuesday
ŋ: <u>ny'ung-ma</u>	ɲə:mə	turnip
d: <u>nyes-dmigs</u>	ɲi:mi:	sin
<u>rgod-ma</u>	gə:mə	mare
n: <u>sngon-mar</u>	ɲɛ:ma:	formerly
<u>gsol-mar</u>	sə:ma:	butter
b: <u>chibs-smed</u>	tʃhi(m)me:	crupper
<u>grib-ma</u>	tri(m)mə	shadow
m: <u>'bam-smān</u>	bamɛ:	gout medicine
r: <u>rgyal-mo</u>	ɟɛ:mo	queen
<u>sgor-mo</u>	gə:mo	rupee

The following lexical items can therefore be classified as m-Piece: ma, mi, mar, mo, dmar, dmigs, smān;

The exponents statable for the disyllabic-Noun Piece differ from those of the Verbal Phrase in the following respects: (i) g Quality Piece, **Vgm** as a

Slow-Tempo alternative; (ii) b Piece, **Vm** as a
Fast-Tempo alternative to **Vnm**, but absence of **Vbm**;
(iii) m Piece, **m**, as opposed to the **mm** of the Verbal-
Phrase exponent.

ix. 1

z: (vow. + long/short dur.), liq. (**l/r/j/w**)

g: (**i/a/u/ɔ** + long dur.), liq.

(**ɪ/ʌ/ʊ/ɔ** + short dur.), (vel. + $\left\{ \begin{matrix} \text{occ.} \\ \text{fric.} \end{matrix} \right\}$ + voice), liq.(st)

ŋ: (**ɪ/ʌ/ʊ/ɔ** + long dur. + nas.), liq.

d: (vow. + long dur.), liq.

n: (vow. + long dur. + nas.), liq.

b: (**ɪ/ʌ/ʊ/ɔ** + short dur.), (lab. + voice + $\left\{ \begin{matrix} \text{occ.} \\ \text{fric.} \\ \text{(ft)} \end{matrix} \right\}$ (liq. + voice))

m: (nas. + lab.), liq.

r: (**i/e/ɛ/y/ø/ʌ/u/ɔ** + long dur.), liq.;

e.g.

Vb. + Part., Part. + Part.

z: bcar-gyi-yin (**-gejʔ:**)

'I will call on'

ma-red (**mare**)

'no, he is not'

g: yi-ge klog-yag (**lɔ:ja:**)

'for reading'

'grigs-yong (**drɪqjʃ**)

'it would do'

n:	<u>yong-rog</u> (<u>jɔ:ro:</u>) <u>byed-se</u>	'"would you come"'
	<u>'thung-yag-gi</u> (<u>thɔ:ja:-</u>) <u>chu</u>	'drinking water'
d:	<u>mi de-tsho</u> <u>'phrad-long</u> (<u>tɕe:lɔ:</u>)	'time to see these men' (Bell)
	<u>bsdad-long</u> (<u>dɛ:lɔ:</u>)	'time to stay'
n:	<u>skyon-rog</u> (<u>cɔ:ro:</u>) <u>gnang</u>	'please print'
	<u>phyin-yong</u> (<u>tʃhɪ:jɔ</u>)	'they go'
b:	<u>bod-skad</u> <u>slob-yag</u> (<u>lɔb'ja:</u>) <u>cig</u>	'one for learning Tibetan'
	<u>rta'i-sga</u> <u>yag-po</u> <u>rgyab-yod-pas</u> (<u>gɔɔβjɔ-</u>)	'have you fastened the saddle well' (G. and R.)
m:	<u>'dzoms-yong</u> (<u>zɔmjɔ</u>)	'they would gather'
	<u>zin-yong</u> (<u>sumjɔ</u>)	'they would catch'
r:	<u>phul-yong</u> (<u>phy:jɔ</u>)	'they would offer'
	<u>sgyur-yong</u> (<u>gju:jɔ</u>)	'they would alter'.

The Verbs Complement red, vin, yod, and yong, the Verbal Particles vin, yong, yod, and red, and the Nominalizing Particles long, yag, and rog, are classified as 1-Piece.

disyllabic Noun

z:	<u>a-wa</u> (<u>'awə</u>) <u>sras-sos</u>	children
	<u>de-ring</u> (<u>thɪrɪ:</u>) <u>kha-sang</u>	these days

g: <u>brag-g.yab</u> tr ^h :jɿp	shelter under projecting rock
<u>zhag-blug</u> ʃʌ:lu:	slop basin
<u>rig-dbang</u> riɡ'wǎ:	Rigwang
<u>mig-ra</u> miɡ' rə/miɣrə	eye-shade
ŋ: <u>drung-yig</u> trǒ:ji:	secretary
ɔ: <u>rang-dbang</u> rǎ:wǎ:	independence
d: <u>shal-ras</u> ʃɛ:re:	face
<u>chos-dbang</u> tʃhɔ:wǎ:	Chowang
n: <u>byin-rlabs</u> tʃhɿ:lɿp ¹	blessing
<u>sman-yon</u> mɛ:jɔ:	the price of medicine
b: <u>chibs-ra</u> tʃhib' rə	stable
<u>thob-lung</u> thɔb' lɔ:	button-hole
<u>yab-yum</u> jɔbjɔm/jɔβjɔm	parents
m: <u>bsam-blo-la</u> samlɔle	on reflection
<u>lam-yig</u> lamji:	passport
r: <u>phyag-tshod</u> 'khor-lo kɔ:lɔ	wrist-watch
<u>rgyal-rabs</u> ɟe:rɿp	royal lineage

These examples provide the following selection of lexical items that can be classified as z-Piece:

bug/blugs, blo, rlabs, lung, lo; ring, ra, ras,
rabs; yig, yon, yum, g.yab, dbang, wa: the Verbs

¹Also tʃhɿmlo:

that have been classified as z-Piece are: klog,
slob/bslabs, blug/blugs, lus, log.

The z exponents drawn from the disyllabic-Noun type of Piece differ from those drawn from the Verbal-Phrase types of Piece in the following respects:

- (i) in the z, g, ŋ, d, and r types of Quality Piece, initial labiovelarity (**w**) in the second Syllable
- (ii) in the g type of Quality Piece, final friction (**ɣ**) in the first Syllable, and initial laterality (**l**) and friction (**r**) in the second.

x. s

z: (vow. + long/short dur.), sib. (**s**/**ʃ**/**ʔ**)

g: Verbal-Phrase Pieces

(**i**/**a**/**u**/**ɔ** + long dur.), sib.

(**ɪ**/**a**/**ə**/**ɒ** + short dur.), (vel. + {occ. + voicels},
{fric. + voice},)
(fric. + voicels.)(**s**/**ʃ**)
(st)

disyllabic-Noun Piece

(**ɔ**/**a**/**u** + long dur.), fric. (ft)

(**ɪ**/**ɛ**/**a**/**ʌ**/**ə**/**ɒ** + short dur.), (vel. + occ./fric. + {voicels.},
{voice},)
(fric. + voicels.)

ŋ: (**ɪ**/**a**/**ə**/**ɔ** + long dur. + nas.), sib.

d: i. (vow. + long dur.), sib.

ii. (ø + short dur.), sib.

n: i. (vow. + long dur. + nas.), sib.

ii. (ɿ + short dur. + nas.), sib.

b: (ɿ/ʊ/ɔ/ɒ + short dur.), (lab. + occ. + $\left\{ \begin{array}{l} \text{voicels.} \\ \text{voice(ft)} \end{array} \right\}$) $\left\{ \begin{array}{l} \text{(sib. +} \\ \text{voicels.)} \end{array} \right.$

m: (lab. + nas.), sib.

r: (i/e/ɛ/y/ø/a/u/ɔ + long dur.), sib.;

(the exponents given at d(2) and n(2) apply to the
Vb. Comp. + Part., or Part. + Part., types of Piece,
212131122)

e.g.

Vb. + Part., Part. + Part.

z: yag-po shes-kyi-a-yod (-gɿʔa-)

'I doubt whether
I do know it well'

byas-bzhin (tʃhɛ:ʃɿ)

'therefore'

g: rgyugs-a (ɿu:ʔa:)

'off you go, then'

bsgrigs-sa (driksə) de

'this place where
it joins'

blugs-shig (lɔɣʃɿ)

'pour it, then'

ŋ: nga phyin-song-se (-sɔʃ), gsung-a
(sɔ:ʔa:)

'do, please, say
I went'

- d: 1. khong-la sprad-shag (trɛ:ʃa) 'it has been
given to him'
bris-song (trɪ:sʃ) 'he wrote'
2. sku-gzugs bde-po yod-shag (jøʃa) 'I see you are
well'
- n: 1. skyon-a-yod (cø:ʔa-) 'we have not, I
suppose, printed'
2. so-so'i lung-pa'i phyu-pa
gyon[-sej] (khø:ʃ) '"wear the dress
of one's own
country"'
2. sku-gzugs bde-po yin-shag
(jɿʃa) 'I see you are
well'
- b: lab-a (lɿp'ʔa:) 'tell him, will you'
- chibs-song (tʃhɪbsʃ) 'he rode'
- m: zin-song (sɪmsʃ) 'he caught'
- skom-sa'i (kɔmsɛ:) 'dug-ka
'what a shortage
there is too'
- r: bskol-song (kø:sʃ) 'he boiled it'
- shi tshar-song (tsha:sʃ) 'he was already
dead'

The Verbal Particles shig, se/ze, a (Dubitative,
Imperative), shag/zhag, song, and bzhin, and the
Nominalizing Particle sa, are classed as s-Piece.
disyllabic Noun

- z: glo-sub lɔsu: coughing
- tog-tsam sku-bzhugs (kɔʃu:) gnang do stay a little

g: <u>lug-sha</u> <u>logʃə/loʃə</u>	mutton
<u>rgyug-shad</u> <u>gjoʃə:</u>	comb
<u>lcags-zam</u> <u>tʃaksam</u>	iron bridge
<u>phag-ze</u> <u>pha:si</u>	bristle brush
ŋ: <u>gsung-gzhas</u> <u>sʌ:ʃə:</u>	song
<u>gangs-seng</u> <u>khā:sʃ:</u>	[? snow leopard]
d: <u>gsol-zhib</u> <u>sy:ʃɪp</u>	barley flour
<u>gnas-gzigs</u> <u>ne:si:</u>	pilgrimage
n: <u>smyan-zhu</u> <u>pɛ:ʃə</u>	application
<u>btson-srung-ba</u> <u>tsʃ:sɔŋ-</u>	jailer
b: <u>chibs-gzhol</u> (<u>tʃhɪpʃy:</u>) <u>gnang-na</u>	you ought to dismount
<u>chibs-gseb</u> <u>tʃhɪpsɪp</u>	stallion
m: <u>na-bza'</u> <u>namse</u>	clothes
<u>gzim-shag</u> <u>simʃa</u>	house
r: <u>rgyal-srid</u> <u>ʃe:si:</u>	civil adminis- tration
<u>gser-zangs</u> <u>se:sā:</u>	gold-gilt copper

The Noun lexical items that occur as a second Syllable of the above disyllabic s Pieces, and others that resemble them in this respect, are classifiable as s-Piece: zhib, gzhas, zam, ze, zangs, bza', sha, shad, shag, seng, gseb, srid. The above Verb lexical items, zhu/zhus, bzhugs, gzhol, gzigs, and sub are also s-Piece, and so too are: bzhengs, bshags, bshad, sprung.

The respects in which the Verbal-Phrase exponents of the s Piece differ from those of the disyllabic Noun are: (i) (all types of Quality Piece) glottal plosion as an initial feature of the second Syllable; (ii) (z Quality Piece) the 1 Quantity Piece (**V:s/ʃ/?**); (iii) (g Quality Piece) absence, from the available material, of Syllable-final (voice + occlusion) (**g'**) and voicelessness + friction) (**x**).

xi. q

The statement of exponency for the Verbal Phrase, Verb + Nominalizing Particle (ba/pa/ga/nga/ra), is sufficiently different from that for the disyllabic Noun Piece for the two to be separately stated:

(Vb. + Nomzg.) Part

z: (s), (**e/ɛ/a/o/ɔ** + long dur.)¹

(**i/ɛ/a/ɔ/ɔ** + short dur.), (lab. + plos.)

(l), (**e/ɛ/y/ø** + long dur.), (lab. + plos.)

g: as for (i), p.

¹For s and l see Quantity, 2121312.

ŋ: (ɿ/a/ɔ/p + short dur.), (nas. + vel), (vel. + plos.);

(ɿ/a/ɔ/p + short dur.), $\left\{ \begin{array}{l} (\text{nas.} + \text{vel}), \text{vow.} \\ (\text{nas.} + \text{vel.} + \text{syll.}) \end{array} \right\} (\text{ft});$

(p + long dur. + nas.), (vow. + nas.) (ft)

d: as for p

n: (vow. + short dur.), (nas. + lab.), (lab. + $\left\{ \begin{array}{l} \text{plos.} \\ \text{nas. (ft)} \end{array} \right\}$)

b: (ɿ/ɤ/ɔ/p + short dur.), (lab. + $\left\{ \begin{array}{l} \text{plos.} \\ \text{fric.} \end{array} \right\} (\text{ft})$)

m: as for p

r: as for p, but with (apico-alv. + fric. + syll.)
as an additional Fast-Tempo alternative.

For examples of these exponents see pp. 315-20.

The Nominalizing Particle ba/pa/ga/nga/ra is
classified as q-Piece.

disyllabic Noun

z: (e/ɛ/ɑ/o/ɔ + long dur.)

(ɿ/a/ʌ + short dur.), vow. (ɔ ø)

g: (V + short dur.), (vel. + plos. + voice)

ŋ: (V + short dur.), (vel. + nas.), vow.

d: none

n: (V + long dur. + nas.), vow.

b: none

m: none

r: (ɿ/a/ə/p + short dur.), (alv. + apic. + fric.), vow.
e.g.

z: <u>ra-bzi-ba</u> (-pse:/-tse:)	'drunkard'
<u>gzhis-rtse-ba</u> , (-dze:).	'Shigatse man'
<u>rgyal-rtse-ba</u> (-ze:)	'Gyantse man'
<u>rme-ba</u> me:	'mole'
<u>lha-sa-ba</u> (-sa:)	'Lhasa man'
<u>ka-ba</u> ka:	'pillar'
<u>dngo-bzo-ba</u> (-pso:)	'shoe-maker'
<u>rmó'o</u> (mo:) <u>lags</u>	'grandmother'
<u>go-ba</u> go:	'large kind of vulture'
<u>shing-bzo-ba</u> (-so:)	'carpenter'
<u>chibs-bsu-ba</u> (-so:)	'luggage'
<u>du-ba</u> tho:	'smoke'
<u>le'u</u> liɿ	'chapter'
<u>ga'u</u> khɿ	'charm-box'
<u>zha-bo</u> faɿ	'cripple'
<u>zla-'od</u> daɿ:	'moonlight'
g: <u>yi-ge</u> tɿɿ	'letter'
<u>lu-gu</u> loɿ	'lamb'
<u>ga-re'i</u> <u>don-la</u> <u>cag-ga</u> (bca'-ga) (tʃage) <u>yag-po</u> <u>ma</u> <u>byas-pa</u>	'why did you not take good care' (G. and R.)

ŋ: <u>'bras-ljongs-pa</u> (- <u>ndʒoŋɐ</u>)	'Sikkimese'
<u>nya-rdung-ba</u> (- <u>bdɔŋɐ</u>)	'fisherman'
<u>sgo-nga</u> (<u>sgong-nga</u>) <u>gɔŋɐ</u>	'egg'
n: <u>steng-og</u> <u>tẽ:ɔ:</u>	'upstairs and downstairs'
r: <u>rgya-ga-ra</u> (- <u>garɐ</u>)	'Indian'
<u>gnas-bskor-pa</u> (- <u>gɔrɐ</u>)	'pilgrim'
<u>phyur-ra</u> <u>tʃhɔrɐ</u>	'cheese'

Such lexical items as ba/nga/ra, bo/-'o, -'u/gu, 'od, 'og, and ge can be classified as q-Piece from these examples. There are no Verbs that can be classified as q-Piece on the same grounds.

The respects in which q-Piece exponents drawn from the Verbal Phrase differ from those of the disyllabic or the trisyllabic Noun are: (i) z Piece, **Vb** for certain Verbs (pp. 339-40); 1 Quantity Piece; no **VV** sequence; (ii) g Piece, the sequences **V:b**, **V:g**, and **Vg'b**, but no sequence **Vg**; (iii) ŋ Piece, the sequences **Vŋb**, **Vŋ**, and **Ṽ:Ṽ**; (iv) d Piece; (v) n Piece, **Vmb**, but no sequence **Ṽ:Ṽ**; (vi), b Piece and m Piece; (vii) r Piece, **ɛ/y/ɔr**, **Vr**, and **V:b/β**.

21213133. m

Since the exponency of the m Initial term also varies in accordance with type of Quality Piece and Juncture Piece, it too is presented within a framework provided by the Quality system (z, g, ŋ, d, n, b, m, r; 212131112) and the Juncture system (2121314). These exponents are given first, in phonetic transcription, in the form of a table, for easy comparison with the corresponding tables for the n (21213131) and the z (21213132) terms:

<u>Juncture</u>		<u>Quality</u>				
		z Piece	g Piece	d Piece	n Piece	b Piece
t	Vmd_n		$V\left\{\begin{matrix} \eta \\ n \end{matrix}\right\}d_n$			Vmd_n
k	Vmg					
c	Vmd_3		$V\eta d_3^1$		$V\eta d_3$	
ts	$V\left\{\begin{matrix} m \\ n \end{matrix}\right\}z$			Vnz		

Notes on the table

i. The ranges of vowels symbolized by **V** are:
 z Piece, ϵ a \wedge \circ ω ; g Piece, a ν ; d Piece, ϵ ; n Piece, \emptyset ;
 b Piece, χ . These are the vowels found in the available material, which is not exhaustive. There are no examples in it of the η , the m, or the r Piece. For the sole example from tr Juncture ($\int amdr\epsilon$: sha-'bras 'meat and rice') see 21213131, v.

ii. Where alternative features are symbolized for the same term, e.g. (tg) $V\left\{\begin{matrix} \eta \\ n \end{matrix}\right\}d_n$, the lower one is appropriate to Fast-Tempo utterances only.

¹Also Vmd_3 ; see the g-Piece example at (iii) below.

The exponents of m in the available material are, by type of Juncture Piece (i-iv; t, k, c, ts) and by type of Quality Piece (z, g, d, n, b):

i. t Juncture

z: $\epsilon/a/\wedge/o/\Delta$, (lab. + nas.), (dent. + plos. + voice)

g: (a/p + short dur.), (nas. + $\left. \begin{matrix} \text{vel),} \\ \text{dent.(ft))} \end{matrix} \right\}$ (dent. + plos. + voice)

b: γ , (lab. + nas.), (dent. + plos. + voice);

e.g.

z: kha-mthun $kh\alpha m\dot{\gamma}$:

'harmony'

sky-a-mda' (? $m\theta a'$) $cam\Delta$

'dawn'

g: phag-mdo $phan/nd\Delta$

[Phagdo]

b: stabs-mthun $t\alpha m\dot{\gamma}$:

[friendly manner?]

From the above examples mthun, mda' (or mtha'), and mdo can be classified as m-Piece lexical items (App. VI); they include mthun, which can be a Verb, to which can be added 'dul'.

ii. k Juncture

z: Δ , (lab. + nas.), (plosion + voice + $\left. \begin{matrix} \text{prev. (g)} \\ \text{pal. (j)} \end{matrix} \right\}$ e.g.

rdo-mgyogs $\dot{d}\alpha m\dot{g}j\Delta:/\dot{d}\alpha m\dot{j}\Delta$:

stone weight

From this, the only example in the material, mgvogs can be classified as m-Piece.

iii. c Juncturez: $\epsilon/a/\wedge/\partial/\partial$, (lab. + nas.), (dorso-pal. + aff. + voice)g: ν , (vel. + nas.), (dorso-pal. + aff. + voice)n: (\emptyset + short dur.), (pal. + nas.), (dorso-pal. + aff. + voice);

e.g.

z: ja-mchod $t\dot{s}hamd\dot{z}\epsilon$:

libation of tea

sku-mched $k\dot{a}md\dot{z}\epsilon$:

relation

g: tshogs-mchod $tsh\dot{o}nd\dot{z}\epsilon$:¹

(religious gathering)

n: dkon-mchog ($k\dot{o}nd\dot{z}\epsilon$.) gsumthe Three Precious
Things

From these examples mchod, mched, and mchog can be classified as m-Piece lexical items (App. VI), of which mchod is the only Verb.

iv. ts Juncturez: $a/\partial/\partial$, (nas. + $\left\{ \begin{array}{l} \text{lab.}) \\ \text{alv.}) \text{ (ft)} \end{array} \right\}$) (alv. + fric. + cor. + voice)d: (ϵ + short dur.), (nas. + alv.), (alv. + fric. + cor. + voice);

e.g.

z: dbu-mdzad $\dot{t}\dot{o}mze$:

head tailor

ngo-mtshar ($\dot{n}\dot{o}mza:/\dot{n}\dot{o}nza:$) chen-po wonderful¹Also $tsh\dot{o}md\dot{z}\epsilon$:

d: khyad-mtshar **chenza:**

strangeness

From these examples mdzad and mtshar can be classified as m-Piece lexical items; there are no Verb examples (there is a Verb mdzad 'do' in Classical but not in Lhasa Tibetan).

21213134. b

The exponency of the b Initial term also varies in accordance with type of Quality Piece and Juncture Piece; it is here presented in terms of the Quality system (z, g, ŋ, d, n, b, m, r; 212131112) and the Juncture system (2121314). As with other terms of this system the exponents are first illustrated, in phonetic transcription, in the form of a table, for easy comparison with the tables for the n, z, and m terms (21213131-3).

Junct.	Quality									
	z Piece		g Piece		ŋ Piece	d Piece	n Piece	b Piece	m Piece	r Piece
	st		st							
t:	$v \begin{bmatrix} p't \\ b'd \end{bmatrix}$	$Vp'th$	$z/o/\omega g'd^1$		$v \begin{bmatrix} \eta \\ n \end{bmatrix} d$		Vnd	$Vb'd$	Vmd	
k:	$v \begin{bmatrix} p'kj \\ b'gj \end{bmatrix}$		$u:gj$			$V:gj$	$Vngj$		$Vmgj$	$V:gj$
c:	$v \begin{bmatrix} p'tj \\ b'd_3 \end{bmatrix}$	$Vp'tjh$	$a/\omega \begin{bmatrix} k'tj \\ g'd_3 \end{bmatrix}$		$v \begin{bmatrix} \eta \\ n \end{bmatrix} d_3$	$V:d_3$	$\begin{bmatrix} Vnd_3 \\ \tilde{V}:d_3 \end{bmatrix}$	$Vb'tj$	Vmd_3	$V:d_3$
tr:	$v \begin{bmatrix} p'tr \\ b'dr \\ b'r \end{bmatrix}$	$Vp'tr_g$	$a/\wedge/\omega \begin{bmatrix} k'tr \\ g'dr \end{bmatrix}$	$ak'tr_g$	$Vndr$	$V: \begin{bmatrix} tr \\ dr \end{bmatrix}$		$v \begin{bmatrix} b' \\ \beta \end{bmatrix} r$		
ts:	$v \begin{bmatrix} p's \\ b'z \end{bmatrix}$									
n:	Vmn									
l:	$Vb'l$		$a:/o:l$		$\tilde{a}:l$	$V:l$		$Vb'l$	Vml	
s:	$v \begin{bmatrix} p's/f \\ b'f \end{bmatrix}$		$\wedge g'f$		$\tilde{i}:s$	$V:s$	$\tilde{V}:s/f$	$Vp's$		$V:s$

¹But in bzhugs-gdan 'seat' $u:d$ ($[u:d\epsilon:]$) is more common than $\omega g'd$ ($[og'd\epsilon:]$).

Notes on the table

i. Where the exponent of b differs as regards the vowel quality or duration of the first Syllable of the Piece in accordance with differences in Tempo, it is necessary to indicate the Slow-Tempo (st) features in a separate column (z Piece and g Piece only).

Elsewhere the appropriate ranges of vowels and their duration are summarized as **V**, **V:**, or **Ṽ:**. These ranges are:

z: ɪ ɛ a ʌ ɔ ɒ	g: ɪ a ʌ ɒ ɔ; i: a: ʌ: ɔ: o: u:
ŋ: ɪ a ʌ ɒ ɔ; ɪ̃: ă: ȃ: ɔ̃: ɔ̃:	d: i: e: ɛ: ø: y:
n: ɪ ɛ ø y; ɪ̃: ɛ̃: ȳ: ȳ:	b: ɪ (ɛ) ɔ ɒ ɔ
m: ɪ a ʌ ɒ ɔ	r: i: e: ɛ: ø: y: a: ʌ: ɔ: o: u:

The available material does not, however, necessarily include an example of each vowel in each range; and in the statement of exponency below only those vowels are cited for which there are examples.

ii. Where alternative exponents are given in brackets, the lower of the two is appropriate only to Fast-Tempo utterances.

The exponents of the b Initial term are:

i. t Juncturez: l/ɛ/a/ʌ/ɔ/ɔ,
(la
$$(\text{lab.} + \text{occ.} + \begin{cases} \text{voicels.}, & (\text{dent.} + \text{plosn.} + \text{voicels.} + \begin{cases} \text{asp(st)} \\ \text{non-asp.} \end{cases} \\ \text{voice}), & (\text{dent.} + \text{plosn.} + \text{voice} \end{cases}$$
g: (l/p/ɔ + short dur.), (vel. + occ. + voice), (dent. + plos. + voice)ŋ: (a/p + short dur.),
$$(\text{nas.} + \text{voice} + \begin{cases} \text{vel}), \\ \text{dent.} \end{cases} \text{ (ft)}, \left. \vphantom{\begin{matrix} \text{vel} \\ \text{dent.} \end{matrix}} \right\} (\text{dent.} + \text{plos.} + \text{voice})$$

d: no examples in the material

n: (y + short dur.), (dent. + nas.), (dent. + plos. + voice)b: (ɣ + short dur.), (lab. + occ. + voice), (dent. + plos. + voice)m: a, (lab. + nas.), (dent. + plos. + voice)

r: no examples in the material

e.g.

z: <u>mgo-btags</u> <u>gɔp'ta</u>	protection ¹
<u>bzhes-thud</u> <u>ʃɪp'ty:/(st)ʃɪp'thy:</u>	butter-milk cheese
<u>nya-rdung-ba</u> <u>nʌb'dɔŋ</u>	fisherman
<u>shwa-gdan</u> <u>ʃab'dɛ:</u>	deer-skin mat
<u>sa-bdag</u> <u>sab'da</u>	landowner

¹ kha-btags khada scarf (not *khapta) is not b-Piece but z-Piece, and the lexical item btags exemplified by it is therefore taken to be different from that of mgo-btags.

g: <u>gzig-gdan</u> <u>sig'dɛ:</u>	leopard-skin mat
<u>bzhugs-gdan</u> <u>ʃu:dɛ:/</u> (st) <u>ʃag'dɛ:</u>	seat
ŋ: <u>rkyong-gdan</u> <u>ɕɔŋdɛ:</u>	long thin mattress
<u>pang-gdan</u> <u>paŋdɛ:/</u> <u>paŋdɛ:</u>	apron
n: <u>bun-bdag</u> <u>phynda</u>	banker
<u>bdun-cu</u> <u>don-bdun</u> <u>thyndɿ:</u>	seventy seven
b: <u>zhabs-gdan</u> <u>ʃɔbdɛ:</u>	[? doormat]
<u>chab-gdan</u> <u>tʃhɔbdɛ:</u>	[?]
m: <u>'jam-gdan</u> <u>dʒamdɛ:</u>	[? soft mat]

From the above examples btags, thud, gdan,¹ bdag, bdun, and rdung, of which btags and rdung are Verb lexical items, can be classified as b-Piece (for others see Appendix VI).

ii. k Juncture

z: ɿ/ɛ/a/ʌ/ɔ/ɔ,

(lab. + occ. + {voicels.), (voicels. + vel. + plos.)
voice), (voice + vel. + plos.)

g: (u + long dur.), (vel. + plos. + voice)

ŋ: no examples in the material

d: (ɿ/ɛ + long dur.), (vel. + plos. + voice)

n: (ə/y + short dur.), (vel. + nas. + voice), (vel. + plos. + voice)

¹Supported by shwa-gdan (above), ko-gdan kɔbdɛ: hide seat, and rtswa-gdan tsabɛ: grass mat, but opposed by kha-gdan khadɛ: (not *khabɛ:) seat cover, which would require its classification as z-Piece, unless treated as two Words.

b: no examples in the material

m: Δ , (lab. + nas.), (vel. + plos. + voice)

r: (e + long dur.), (vel. + plos. + voice);

e.g.

z: <u>sngo-skya</u> $\eta\alpha p'kje/\eta\alpha b'gje$	grey
<u>bzhi-brgya</u> $\int\alpha b'gje$	four hundred
g: <u>drug-brgya</u> $\tau ru:gje$	six hundred
d: <u>nyi-brgya</u> $\eta i:gje$	two hundred
<u>brgyad-brgya</u> $\int\epsilon:gje$	eight hundred
n: <u>bdun-brgya</u> $dyngje$	seven hundred
<u>bdun-cu don-brgyad</u> $th\epsilon ngje:$	seventy eight
m: <u>gsum-brgya</u> $samgje$	three hundred
r: <u>ser-skya</u> $se:gje$	cream colour

From these examples skya,¹ brgya, and brgyad can be classified as b-Piece (App. VI).

iii. c Juncture

z: $\iota/a/\wedge/\alpha/\Delta$, (lab. + occ.

$$+ \begin{cases} \text{voicels.}), (\text{voicels.} + \text{caff.} + \text{dorso-pal.} + \begin{cases} \text{asp. (st))} \\ \text{non-asp.}) \end{cases} \\ \text{voice}), \begin{cases} (\text{voicels.} + \text{aff.} + \text{dorso-pal.} + \text{non-asp.}) \\ (\text{voice} + \text{aff.} + \text{dorso-pal.}) \end{cases} \end{cases}$$

g: (a/Δ + short dur.), (vel. + occ.

$$+ \begin{cases} \text{voicels.}), (\text{voicels.} + \text{aff.} + \text{dorso-pal.} + \text{non-asp.}) \\ \text{voice}), (\text{voice} + \text{aff.} + \text{dorso-pal.}) \end{cases}$$

¹But sa-skya $sagje$ Sakya and li-skya $lugje$ [$?Likya$] (not $*sap'kje$, $*lip'kje$) support the classification of skya, if the same lexical item, as z-Piece.

ŋ: (ʌ + short dur.), (nas. + $\left\{ \begin{array}{l} \text{vel.} \\ \text{pal.} \end{array} \right\}$), (voice + aff. + dorso-pal.)

d: (ɛ/ø + long dur.), (aff. + dorso-pal. + voice)

n: (ɪ/ɛ/ɣ + short dur.), (nas. + pal.), (voice + aff. + dorso-pal.)

b: ɔ, (lab. + occ. + voice), (voicels. + aff. + dorso-pal.)

m: a/ɔ, (lab. + nas.), (voice + aff. + dorso-pal.)

r: (e/ɛ + long dur.), (voice + aff. + dorso-pal.);

e.g.

z: <u>sa-bcad</u> sap' tʃɛ:/sab' dʒɛ:	division of work
<u>lto-chas</u> tɔp' tʃɛ:/tɔb' dʒɛ:	provisions
<u>khvi-spyang</u> chɪp' tʃɛ:/chɪb' dʒɛ:	jackal
<u>sna-'phyid</u> nab' tʃɪ	handkerchief
<u>rdo-phye</u> dɔp' tʃɪ/(st)dɔp' tʃhe:	stone dust
<u>rma-bya</u> map' tʃɛ/mab' dʒɛ	peacock
g: <u>dmag-chas</u> mak' tʃɛ:	military uniform
<u>drug-cu</u> tʃɔg' dʒɔ	sixty
ŋ: <u>shangs-'phyid</u> ʃʌŋdʒɪ/ʃʌŋdʒɪ	handkerchief
d: <u>brgyad-cu</u> ʃɛ:dʒɔ	eighty
<u>bod-chas</u> phɛ:dʒɛ:	Tibetan articles
n: <u>sman-bcos</u> mɛp'dʒɛ:	medical treatment
<u>nyin-phyed</u> nɪp'dʒɛ:/nɪ:dʒɛ:	half-day
b: <u>nub-byang</u> nɔb' tʃɛ:	north west

m: <u>gsum-cu</u> <u>somdzo</u>	thirty
<u>lam-phyed</u> <u>lamdze:</u>	[? half journey]
r: <u>gser-phye</u> <u>se:dzu</u>	gold dust
<u>nyal-chas</u> <u>ne:dze:</u>	bedding

From these examples bcad,¹ bcu/cu, bcos, chas,² spyang, 'phyid,³ phye, phyed, bya, and byang, of which bcad is a Verb lexical item, can be classified as b-Piece (Appo VI).

iv. tr Juncture

z: ɿ/a/ʌ/o, (lab. +

$$\left\{ \begin{array}{l} \text{occ.} + \left\{ \begin{array}{l} \text{voicels.}, (\text{voicels.} + \text{apico-alv.} + \text{aff.} + \left\{ \begin{array}{l} \text{asp. (st)} \\ \text{non-asp.} \end{array} \right\} \\ \text{voice}), (\text{voice} + \text{apico-alv.} + \text{aff.}) \\ \text{plos.} + \text{voice}), (\text{voice} + \text{apico-alv.} + \text{fric.}) \end{array} \right. \end{array} \right.$$

¹But tradze: khra-bcad window partition (not *trap'tje:) supports the classification of bcad, if the same lexical item, as z-Piece.

lexical item, as z-piece

²Supported by lto-chas (above) and tap'tje:/tab'dze: rta-chas harness, but photje: pho-chas man's dress, and jadze: rgya-chas Chinese dress (not *phop'tje:, *jab'dze:) require chas to be classified as z-Piece.

³But dza'dzi: ljags-'phyid cleansing (not *dza'p'tji:) would require 'phyid to be classified as z-Piece.

g: (a/ʌ/ɔ + short dur.), (vel. + occ. +

$$\left\{ \begin{array}{l} \text{voicels.}, (\text{voicels.} + \text{apico-alv.} + \text{aff.} + \left\{ \begin{array}{l} \text{asp. (st)} \\ \text{non.asp.} \end{array} \right\}) \\ \text{voice),} \quad (\text{voice} + \text{apico-alv.} + \text{aff.}) \end{array} \right.$$

ŋ: (ɤ + short dur.), (vel. + nas.), (voice + apico-alv. + aff.)

d: (e/y + long dur.), (apico-alv. + aff. + $\left\{ \begin{array}{l} \text{voicels. (st)} \\ \text{voice} \end{array} \right\})$

n: no examples in the material.

b: (ɣ + short dur.), (lab. + voice +

$$\left\{ \begin{array}{l} \text{occ.}, (\text{voice} + \text{apico-alv.} + \text{aff.}) \\ \left\{ \begin{array}{l} \text{occ.} \\ \text{fric. (ft)} \end{array} \right\} (\text{voice} + \text{apico-alv.} + \text{fric.}) \end{array} \right.$$

m: no examples in the material.

r: no examples in the material.

e.g.

z: <u>wa-phrug</u>	wap'tru:/(st) wap'tɕu:	fox cub
<u>ra-phrug</u>	rap'tru:/rab'dru:	kid
<u>sa-khra</u>	sap'tre/(st)sap'tɕe	map
<u>mgo-dkrog</u>	gop'tro:/gɔb'dro:	upset
<u>lha-bris-pa</u>	labri:-	painter
<u>rta-sbrag(rags)</u>	tabra	body of horsemen
g: <u>lug-phrug</u>	lɔk'tru:/lɔgdru:	lamb
<u>lcags-khra</u>	tɕak'tre/tɕak'tɕe	wire netting
ŋ: <u>tshong-phrug</u>	tshɔŋdru:	agent

d: <u>gces-phrug</u>	<u>tʃe:tru:</u>	darling child
<u>gsos-phrug</u>	<u>sy:dru:</u>	adopted child
<u>shel-khra</u>	<u>ʃe:dre</u>	glass window
b: <u>slab-phrug</u>	<u>lʃb̥dru:</u>	pupil
<u>zhabs-bro</u>	<u>ʃʌb'ra/ʃʌβra</u>	dancing

From these examples dkrog, khra, phrug,¹ bris, bro, and sbrags (rags or hrag), of which dkrog and bris are Verb lexical items, can be classified as b-Piece (App.VI).

v. ts Juncture

z: ʌ/ɔ/ɔ, (lab. + occ. + {voicels.}, (voicels. + fric. + alv.)
(voice), (voice + fric. + alv.)

(There are no g, ŋ, d, n, b, m, or r examples in the material);

e.g.

z: klu-btsan lɔb'zɛ: [ʔ powerful waterdemon]
lha-btsug lʌp'su:/lʌb'zu: [ʔ]

whence btsan and btsug, the latter of which is a Verb lexical item, can be classified as b-Piece (App. VI).

vi. n Juncture

z: ɭ/a/ɔ, (lab. + nas.), (nas. + pal.)

(there are no g, ŋ, d, n, b, m, or r examples in the material); e.g.

¹ But dge-phrug gɟɪtru: novice, dwa-phrug dʌtr/dru: orphan, and bu-phrug phɔtru: child (not *gɟɪp'tru:, *dʌp'tru:, *phɔp'tru:) would require phrug to be classified as z-Piece (21213132,v).

z: <u>khyi-smyo-ba</u>	<u>chum</u> po:	mad dog
<u>sgra-(b)rnyan</u>	<u>dramp</u> ŋ:	guitar
<u>ko-mnyed-pa</u>	<u>komp</u> e:-	tanner;

whence smyo, (b)rnyan, and mnyed, of which smyo and mnyed are Verb lexical items, can be classified as b-Piece.

vii. 1 Juncture

z: a/ɔ/ə, (lab. + occ. + voice), (voice + alv. + lat.)
g: (a/ɔ + long dur.), (voice + alv. + lat.)
ŋ: (a + long dur. + nas.), (voice + alv. + lat.)
d: (ɪ + long dur.), (voice + alv. + lat.)
b: (ɤ + short dur.), (voice + lab. + occ.), (voice + alv. + lat.)
m: ɹ/a, (lab. + nas.), (alv. + lat.);

e.g.

z: <u>gru-gla</u>	<u>tr</u> əble	boat hire
<u>kha-bslad/las</u> (<u>khabl</u> e:)	<u>bshad</u> -pa	[?equivocate]
g: <u>g.yog-gla</u>	<u>jo</u> :le	servant's wages
<u>btags-gla</u>	<u>ta</u> :le	[?]
ŋ: <u>khang-gla</u>	<u>khā</u> :le	house rent
d: <u>bris-gla</u>	<u>tri</u> :le	[? hire of a clerk]
b: <u>gsab-gla</u>	<u>sr</u> ble	[? repayment charge]
m: <u>tshems-gla</u>	<u>tshim</u> le	sewing charge
<u>zam-gla</u>	<u>sam</u> le	bridge toll

From these examples gla and bslad/las can be classified as

b-Piece (App.VI); there are no Verb lexical-items.

viii. s Juncture

z: ɿ/ɛ/a/ʌ/ɔ/ə, (lab. + occ. +

{voicels.}, (voicels. + fric. + pal./alv.)
{voice), (voicels. + fric. + pal.)(ft)

g: (ʌ + short dur.), (vel. + occ. + voice), (voicels. + fric. +
pal.)

ŋ: (ɿ + long dur. + nas.), (voicels. + fric. + alv.)

d: (ɛ + long dur.), (voicels. + fric. + pal./alv.)

n: (ɤ + long dur.), (voicels. + fric. + pal./alv.)

b: (ɿ + short dur.), (voicels. + fric. + alv.)

r: (ə + long dur.), (voicels + fric. + alv.);

e.g.

z: <u>cha-bzhag</u>	tʃhap'ja/tʃhab'ja	reliance
<u>chu-gzhong</u>	tʃhəp'ʃɔ:/tʃhəb'ʃɔ:	bath tub
<u>dga'-zhi-ba</u>	gʌp'je:	[?man from Gapshi]
<u>chu-bshal</u>	(tʃhəp'/b'je:) <u>thong</u>	wash
<u>khyi-shig</u>	chɪp'ʃɿ	flea
<u>dngo-bzo-ba</u>	ŋəp'sɔ:	shoemaker
<u>nya-zin-pa</u>	ɲʌp'sum-	fisherman
<u>rta-bsu</u>	tʌp'sɔ	[?escort]
g: <u>stag-zhi-ba</u>	tʌg'je:	'epithet of Ishwara'
		(Jaeschke)
ŋ: <u>shing-bzo-ba</u>	ʃɿ:so:	carpenter

d:	<u>kha bshal-bshal</u>	(<u>ʃɛ:ʃɛ:</u>)	to rinse the mouth
	<u>zhal-bzas</u>	<u>ʃɛ:ʃɛ:</u>	pastries
n:	<u>bdun-cu don-bzhi</u>	<u>thʃ:ʃɪ</u>	seventy four
	<u>kun-bzang</u>	<u>kʃ:sā:</u>	Kunsang
b:	<u>chibs-bsu-ba</u>	<u>tʃhɪp'so:</u>	luggage
	<u>phebs-bsu</u> ¹	<u>phɪp'sə</u>	welcome
r:	<u>gser-bzo-ba</u>	<u>se:sə:</u>	goldsmith

From the above examples zhi(-ba), gzhong, bzhag, bzhi, shig,² bshal, zin, bzo, bzas, bzang, and bsu, of which bzhag, bshal, zin, bzo, and bsu, together with bzi and bsho(s) not exemplified here, are Verb lexical items, can be classified as b-Piece (App. VI).

21213135. g

The only examples of the g Initial Piece are also examples of either the z or the n Quality Piece, and of the c, n, or s Juncture Piece. The z-Quality-Piece examples are somewhat inconsistent; and more than one exponent has had to be given. These exponents are:

¹As far as the Verbal Phrase is concerned, the Syllable-final features of phebs require it to be classified in terms of the Quality system as d-Piece; but in the disyllabic Noun, it is sometimes characterized by final labial occlusion (p' b'), and must therefore be classified not as d-Piece but as b-Piece.

²But 'dre-shig drɪʃɪ (not *drɪp'ʃɪ) bug would require shig to be classified as z-Piece (21213132, x).

1. c Juncture

z: 1. ω/\wedge , (vel. + occ. + $\left\{ \begin{array}{l} \text{voicels),} \\ \text{voice)(ft),} \end{array} \right\}$ (voicels. + aff. + dorso-alv.)

ii. $\left\{ \begin{array}{l} ((o/ e^1/1 + \text{long dur.}) \\ ((\wedge/\omega + \text{short " }) \end{array} \right\}$ (voicels. + aff. + dorso-alv.)

n: $\left\{ \begin{array}{l} (y + \text{long dur. + nas.}), \\ (y + \text{short " .}), (\text{nas. + pal.})(\text{st}), \end{array} \right\}$ (voicels. + aff. + dorso-alv.)

e.g.

z: 1. bcu-gcig $tʃ\omega k'/g'tʃi:$ eleven

nyi-shu rtsa-gcig $ts\wedge k'/g'tʃi:$ twenty one

ii. sum-cu so-gcig $so:tʃi:$ thirty one

bzhi-bcu zhe-gcig $ʃe:tʃi:$ ¹ forty one

drug-cu re-gcig $ri:tʃik$ ² sixty one

dgu-bcu go-gcig $kh\omega tʃik$ ninety one

n: bdun-cu don-cig $th\ddot{y}:tʃik/th\ddot{y}:tʃi:$ ³ seventy one

These examples raise a number of difficulties: (1) the fact that all these examples are c-Piece (Closure, 212133), with the vowel of the first syllable ($o: \wedge i: \ddot{y}: \omega$)

¹Thought to be an error for $ʃi:tʃi:$; cf. bzhi-bcu zhe-dgu $ʃi:g$ forty nine.

²Also $re\ tʃik'$.

³The initial voicelessness of gcig ($-tʃik'/-tʃi:$) in all these examples requires that it be considered as in Interword Junction with the preceding Syllable; but the relatively close vowel quality of that Syllable requires both Syllables to be treated as contained in a c Piece (Closure, 212133), and therefore as contained in the same Word. Numbers have special problems.

harmonizing with that of the second, guarantees that the two Syllables are in Intraverbal Junction with each other, and is supported by the velarity of **tsag'tʃi:** and **tsʌg'tʃi:**; but these two criteria are in conflict with the initial voicelessness of **gcig** (**tʃ**), which, when preceded by a vowel (**o: e: i: ʌ ɔ**), is a criterion of Interverbal Junction:

(11) the vowel of the first Syllable in **go-cig** (**ɔ**) and **lŋga-bcu ŋga-gcig** (**ʌ**) is, as one would expect, short in duration; but the corresponding vowels of **so-gcig** (**o:**) **zhe-gcig** (**e:**), and **re-gcig** (**i:**) are long; and no reason can be given for this difference. The long duration of **so**, **zhe**, and **re** suggests that the examples containing these lexical items cannot be z-Quality-Piece but must be r-Piece (cf. 21213132, iv); but the short vowel duration of these same lexical items, together with following labial occlusion, in e.g. **sɔbʃi so-bzhi**, **ʃɪb'dʒ: zhe-bdun**, and **rɛb'gʃe: re-brgyad** (b-Initial examples 21213134), supports the previous identification, as z-Piece. Even so, **gcig** can be classified as g-Piece, on account of the initial velarity (**g'**) in **bcu-gcig** and **rtsa-gcig**.

11. n Juncture

z: i. Δ/\wedge , (vel. + $\left\{ \begin{array}{l} \text{occ.}(st), \\ \text{nas.}, \end{array} \right\}$ (nas. + pal.)

ii. $\left\{ \begin{array}{l} (o/e/i + \text{long dur.}), \\ (\wedge/\Delta + \text{short "}), \end{array} \right\}$ (nas. + pal.)

n: (y + long dur. + nas.), (nas. + pal.);

e.g.

z:	i.	<u>bcu-gnyis</u>	<u>tʃɔŋpi:</u>	twelve
		<u>nyi-shu rt̚sa-gnyis</u>	<u>tsʌŋpi:/tsʌŋ'pi:</u>	twenty two
	ii.	<u>sum-cu so-gnyis</u>	<u>so:pi:</u>	thirty two
		<u>bzhi-bcu zhe-gnyis</u>	<u>ʃe:pi:</u> ¹	forty two
		<u>drug-cu re-gnyis</u>	<u>ri:pi:</u> ²	sixty two
g:		<u>gcig-gnyis</u>	<u>tʃiŋpi:</u>	one or two
n:		<u>bdun-cu don-gnyis</u>	<u>thɤ:pi:</u>	seventy two
		<u>bdun-gnyis</u>	<u>dɤ:pi:</u>	fortnight

From these examples gnyis/nyi can be classified as g-Piece.

111. s Juncture

z: i. Δ/\wedge , (vel. + occ. + $\left\{ \begin{array}{l} \text{voicels.}, \\ \text{voice}(ft), \end{array} \right\}$ alv. + fric. + voicels.)

¹Thought to be an error for ʃi:-; see p. 492, n.1.

²Also re pi:, re sam.

ii. $\left\{ \begin{array}{l} (\text{o/e/i} + \text{long dur.}), \\ (\text{ʌ/ɔ} + \text{short "}), \end{array} \right\} (\text{alv.} + \text{fric.} + \text{voicels.}).$

n: (y + long dur. + nas.), (alv. + fric. + voicels.).

e.g.

z:	1. <u>bcu-gsum</u>	<u>tʃaksəm</u>	thirteen
	<u>nyi-shu</u> <u>rtsa-gsum</u>	<u>tsak'səm</u> / <u>tsag'səm</u>	twenty three
ii.	<u>sum-cu</u> <u>so-gsum</u>	<u>so:səm</u>	thirty three
	<u>bzhi-bcu</u> <u>zhe-gsum</u>	<u>ʃe:səm</u> ¹	forty three
	<u>drug-cu</u> <u>re-gsum</u>	<u>ri:səm</u> ²	sixty three
n:	<u>bdun-cu</u> <u>don-gsum</u>	<u>thʃ:səm</u>	seventy three
	<u>phun-sum</u>	<u>phʃ:səm</u>	three perfections

From these examples gsum/sum can be classified as g-Piece.

gcig, gnvis/nyi, and gsum/sum are the only lexical items that can be classified as g-Piece; they do not, therefore, include any Verbs.

21213136. Summary

A comparison of the exponents of the five Initial terms n, z, m, b, and g shows that in certain types of Quality Piece not all of them can be distinguished from each other.

¹Thought to be an error for ʃi:-; see p. 492, n.1.

²Also re pi:, re səm.

The degree to which each of the eight types of Quality Piece affords criteria of each of the five Initial terms is:

Type of Quality Piece degree of differentiation of Initial terms

z: all five (n, z, m, b, g) distinguished
g d, b, r: n or m versus z or b (no g examples)
ŋ, n, m: none.

Thus it is only in the z Quality Piece that each of the five Initial terms can be identified.

The initial features that characterize the second Syllable of an Initial Piece that is also a z Quality Piece are:

g	k'tʃ g'tʃ	ŋ k's g's								
m	mdʒ		md	mg	mz					
n	ndʒ		nd	ng	nz	mb	ndr			
b	p'tʃ(h) b'dʒ	mp p's	p't(h) b'd	p'k p's b'g b'z		p'tr b'dr b'f b'r	p'j b'l			
z	tʃ dʒ	n	s	t d		dʒ	b	tr	ʃ	l
								dr		

(z also: n m ŋ r j w V). The first Syllable is characterized by final ɪ, e, a, ʌ, ɔ, or ɒ.

In the g, d, b, and r types of Quality Piece the m and n Initial terms are distinguished from the b and z by a sequence

of two consonants of which the first is a nasal and the second a (voiced) plosive or affricate, or coronal alveolar fricative (**mb mǎ mǧ mǧz mǧr mǧz; ɳb ɳǎ ɳǧ ɳǧz ɳǧr ɳz**), while the characteristic features of the b and z terms are sequences of voiced or voiceless stop followed by a plosive, affricate, fricative, or lateral, e.g. **b'd b'dz b'z p's; g'b g'dz g'z k's g'l**, or of nasal followed by nasal, e.g. **mm ɳm**, or a single consonant, e.g. **b m g dz l s**. The m Initial term cannot, however, be distinguished from the n in this type of Piece, except that sequences in which the second consonant is **b** or **dr** can only be n, e.g. **jɳdrǎ: ɳig-phreng** sentence, **ɳɳmǧrɳ ɳgyab-'dre** quarrel, **tʃɳɳbɳm ɳcig-'bum** one hundred thousand, **ɳɳmbɳ: ɳhabs-'phongs** anus. Similarly, the Initial term z cannot be distinguished from the b, except that sequences in which the second consonant is labial, e.g. **mag'bɳ: ɳmag-dpon** officer, **mɳɳma: ɳig-dmar** Mingmar, **tʃhɳmme: ɳhɳbs-smed** crupper, or a non-palatal nasal (**n m ɳ**), e.g. **ɳɳmnɳ: ɳgyab-snon** reinforcements, **tʃhɳɳne: ɳhyug-nad** cattle disease, and the single intervocalic consonants **n, m, ɳ, r, j, and w**, characterize only the z.

In the g and the b types of Quality Piece the first Syllable of the Piece has nasality and non-nasality as alternant final features, nasality when the g, or b, Quality Piece is also m- or n-Initial, and non-nasality

Quality	Juncture			
	m	n	s	l
g	<u>mig:</u>	<u>miɣma:</u>	<u>miɣne:</u>	<u>miɣʃɪ</u>
b	<u>rgyab:</u>	<u>ɣɣmnɣ:</u>		<u>ɣɣb'lo:-</u>
	<u>chibs:</u>	<u>tʃhɪ(m)me:</u>	<u>tʃhɪp'ʃy:</u>	<u>tʃhɪb're</u>

(g: mig-dmar Mingmar, mig-nad eye disease, migshel eye-glass, mig-ra eye-shade; b: rgyab-snon reinforcements, rgyab-logs(-la) backwards; chibs-smed crupper, chibs-gzhol dismounting, chibs-ra stable).¹

The final nasality or non-nasality of the first Syllable of the g or the b Quality Piece is, therefore, a function of the Initial Piece and the Juncture Piece.

Somewhat similarly the vowel duration of the first Syllable of the d and the r Quality Piece is a function of the Initial system: the duration is short in the m and the n Initial Piece, and long in the b and the z (long duration is also appropriate the first-Syllable lexical item, — d-Piece or r-Piece — in Interpersonal Junction with a following Syllable); e.g.

¹ For Interpersonal Junction cf. p. 498, n. 1.

Initial	Quality			
	d		r	
m:	chenza:			
n:		tʃhənda: nimbəm		senda:
b:		ni:gje		se:dʒɪ
z:	che:ba:	tʃhə:dʒä: ni:ge		si:dri
Inter:	che:	tʃhə: ni:		se:

(m: khyad-mtshar astonishment; n: mchod-dwogs may drink, nyi-'bum two-hundred thousand, gser-mdog gold colour; b: nyi-brgya two hundred, gser-phye gold dust; z: khyad-par difference, mchod-chang beer, gnyis-ka both, gser-khri golden throne; Inter.: khyad difference, mchod drink, gnyis two, gser gold.)

In the remaining three types of Quality Piece, the ŋ, n, and m, on the other hand, the possibility of distinguishing the five types of Initial Piece is very limited; but they can be identified, or partially distinguished, by such medial sequences as the following:

<u>Sequence</u>	<u>Type of Initial Piece</u>
i. $V:V/w/j/r/\eta/m/n$	Vmj z
ii. $\tilde{V}:tj$	g
iii. $\tilde{V}:l/j$	Vml/j z or b
iv. $Vmb V\eta b$	z or n
v. $Vndr V\eta dr Vmdr$	z, b, or n
vi. $\tilde{V}:p/s$	Vmp/s z, b, or g
vii. $Vnz V\eta z Vmz V\eta g Vmg Vnd V\eta d Vmd$ $V\eta d_3 V\eta d_3 Vmd_3 \tilde{V}:d_3$	z, b, n, or m

The role of the Initial system in determining alternant features of the first Syllable of a g, b, d, or r Quality Piece has already been referred to (p. 497); and at the same time it was pointed out that at least one such alternation (nasality/non-nasality) can also be a function of type of Juncture Piece (m/n versus the rest). It seems appropriate therefore to follow the Initial system with the Juncture system.

2121314. Juncture

The Juncture system comprises the eleven terms p, t, k, c, $\hat{t}r$, $\hat{t}s$, n, m, l, s, q. Its role is well illustrated by phonetic variation in the n Quality Piece (212131112, (2)). In this type of Piece the first Syllable of the Piece is characterized by Syllable-final nasality, in the following

forms: labial (**m**), dental (**n**), velar (**ŋ**), palatal (**ɲ**),
 alveolar (**ɳ**), vocalic (**Ṽ**). The coarticulated
 localization feature of the nasality can be related to the
 initial localization and other features of the following
 Syllable:

- i. **-mb-**, (ft)-**mm-** ii. **-nd_n-** iii. **-ŋg-** iv. **-ndz-**
 v. **-ndr-** vi. **-nz-** vii. **-Ṽ:z(ft)/m/n/ɲ/l/r/j/w/s/ʃ/ʔ/V**

e.g.

- | | |
|--|---------------------------------|
| 1. <u>da-ga rang yin-pa</u> (j_umbə) 'dra | it certainly looks like it |
| <u>a'u-rtse yin-pa</u> (j_umm) 'dra | it seems to be enough |
| ii. <u>yin-dwogs</u> (j_undə:) <u>kha-po red</u> | it may possibly be |
| iii. <u>shes-kvi-med</u> j_uŋɣi- | I do not know |
| iv. <u>mkhyen-byung-ngas</u> kʃɛndʒəŋ- | did you know |
| v. <u>bsdad-kvi-yin-'gro</u> -j_undro | he will probably stay
(Bell) |
| vi. <u>shes-tsang</u> j_unzā: | since he knows |
| vii. <u>phyag-dpe klog-nyan-'tsho</u>
-p_uzə | people who read books |
| <u>rdo-rje gling-la phyin-ma-</u>
<u>song</u> tʃh_uma- | he did not go to Darjeeling |
| <u>skyon-rog</u> (cə:p_u) <u>yin-pa-no</u> | are you printing |
| <u>skyon-rog</u> (cə:ro:) <u>gnang</u> | please print |
| <u>thon-yong</u> thə:j_u | they (customarily) go out |
| <u>thon-song</u> thə:s_u | he went out |

sku-skyes gsal-dwang yin-shag

jɿ:ʃa

I see you are well

skyon-a-yod cɔ̃:ʔa-

we have not, I suppose
printed.

In examples (v) and (vi) the final consonant of the first Syllable is symbolized by n (alveolar nasal) in both; but a more detailed transcription would show that the area of contact of both tongue and alveolar ridge is not the same in both: in (v) the contact is apical; and only the tongue tip and a correspondingly narrow area of the rear part of the alveolar ridge is concerned (-ndr-); in (vi) the contact is coronal; and the blade of the tongue and a wide area of the alveolar ridge extending almost to the teeth are concerned (-nz-). These differences in type and area of contact are indicated by dr as opposed to z.

It is clear from the n-Quality-Piece examples that seven different types of disyllabic Piece will need to be distinguished if the Syllable-final differences of the first Syllable (the n-Piece Syllable) are to be accounted for in association with the corresponding differences in initial feature of the following Syllable; i.e. a seven-term system, the Juncture system, applicable to the disyllabic n Quality Piece would be established; and the sevenfold final variation of the n-Piece (or first) Syllable would then be a function of the seven-term-

system.

This seven-term system would not be limited in function to accounting for the final variation of the first Syllable; in conjunction with the Tempo system it would account for the alternation of nasality (**m**) with plosion (**b**) as features of the Nominalizing-Particle Syllable pa in example (1): in the n Quality Piece, in Fast-Tempo utterances, pa is characterized by nasality, but otherwise by plosion.

The n-Piece examples given above are all, grammatically Verb + Verbal Particle and Verb + Nominalizing Particle; but with very few exceptions, the same phonetic features characterize other grammatical types of n Piece, including the disyllabic Noun. Since, as has been shown (pp. 416-8), the disyllabic Noun can contain Verb lexical items, it seems useful to follow the practice of the preceding section (Initial, 2121313) and state the exponents of the Juncture system with reference to all three grammatical types of Piece, Verb + Particle (Verbal or Nominalizing) and disyllabic-Noun, noting the very few differences as they arise.

The n Quality Piece, as has been shown, would require a seven-term system, if, that is, Syllable-final variation in the first Syllable is to be accounted for syntagmatically,

i.e. in association with matching features of the initial of the second Syllable of the Piece; but types of Quality Piece other than the n also show final variation in the initial Syllable of the Piece; and this variation does not necessarily conform to the seven types of Piece required for the n Quality Piece. Thus, in the n Quality Piece, where the initial Syllable is characterized by final nasality of vowel (\tilde{V} ;) the matching initial features of the second Syllable are (cf. section vi above):

- | | |
|--|---------|
| i. coronal-alveolar affrication (Fast Tempo): | z |
| ii. (nasality + labiality/dentality/palatality/
alveolarity/velarity) | m n ɲ ŋ |
| iii. laterality | l |
| iv. (friction + alveolarity + apicality + voice) | r |
| v. (" + voicelessness) | s ʃ |
| vi. non-syllabic vowel | j w |
| vii. glottality + plosion | ʔ |
| viii. vowel | V |

Apart from the question of Tempo in (i), each of these sets of co-articulated Syllable-initial features (ii - viii) agrees in requiring nasality of vowel (\tilde{V} ;) in the preceding Syllable in all circumstances, and can therefore be grouped together; but in the b Quality Piece

These sets of features do not all require the same set of final features in the preceding Syllable, and have to be regrouped accordingly.

In the b Quality Piece the matching Syllable-final and Syllable-initial features:

	<u>first-Syllable final</u>	<u>second-Syllable initial</u>
a. (voice + {occ.}) ¹ {nas.})	$\left. \begin{array}{l} -b'1 \\ -m \end{array} \right\}$	$n/\eta/\eta-$ (nas. + non-lab.)
b. (" + {occ.}) ¹ {nas./(ft) nil) ²	$\left. \begin{array}{l} -b'1 \\ -(m) \end{array} \right\}$	$m-$ (nas. + lab.)
c. (" + {occ.}) {fric.(ft)})	$\left. \begin{array}{l} -b'1 \\ -\beta \end{array} \right\}$	$l/r/j-$ liq.
d. {((voice (ft)) {voicels. } + occ.)	$\left. \begin{array}{l} -b'1 \\ -p' \end{array} \right\}$	$s/\jmath/\varnothing-3 \left\{ \begin{array}{l} \text{(voicels. + fric.)} \\ \text{(glott. + plos.)} \end{array} \right.$

(there are no examples in the material of initial or V in the second Syllable); e.g.

¹ Verbal Phrase only.

² disyllabic-Noun Piece only.

³ in the Verbal Phrase only.

- a. dbyin-[skad] slab-nyan **lɛb'ɲɛ:** people teaching English
khebs-na **khɛmno** if it should spread
- b. lab-ma-song **lɛb'/mma-** he did not speak
chibs-smed **tʃhɪ(m)mɛ:** crupper
- c. bris-klog cig bslab-rog please teach me reading
gnang (**lɛb'/βro:**) and writing
gsab-gla **sɛb'le** [ʔrepayment charge]
- d. lab-a **lɛp'ʔa:** tell him, will you
chibs-bsu-ba **tʃhɪp'so:** luggage

In fact if the same (Juncture) system is to serve for both the b and the n Quality Piece, one of the terms of the seven-term system proposed above for the n Quality Piece would have to be split into four, thus increasing the number of terms needed in the system from seven to ten.

Even those ten terms however would be insufficient to deal with Syllable-final variation in one type of Quality Piece, the z; and eleven are in fact needed in order to be able to account syntagmatically for the final features of the first Syllable and the initial features of the second. These eleven terms (p, t, k, c, ʈr, ʈs, n, m, l, s, z) are as far as possible named from the symbols that

regularly indicate each of them in the orthography;¹ but tr, which is regularly indicated in the orthography by kr, khr, gr, dr, pr, phr, and br (as initial of the second Syllable of the Piece),^{and} irregularly by sr, is more conveniently named from the phonetic symbol **tr**, while **z** is so named from zero.

The form of statement used for the exponents of the Initial system (2121313) anticipated the Juncture system, and gave those exponents within a framework provided by the Juncture system. Indeed the statement of exponency and the examples given above for the items of the Initial system can stand for the terms of the Juncture system; the relevant sections are:

Initial	Juncture										
	p	t	k	c	tr	ts	n	m	l	s	q
21213131 n	i	ii	iii	iv	v	vi					
2 z	"	"	"	"	"	"	vii	viii	ix	x	xi
3 m		i	ii	iii	iv						
4 b		"	"	"	iv	v	vi				
5 g				i			ii			iii	

¹The regular orthographic indications of each type of Piece are the following, when initial in the second Syllable:
 (p) p, ph, b; (t) t, th, d, zl; (k) k, kh, g; (c) c, ch, i, py, phy, by; (tr) kr, khr, gr, dr, pr, phr, br, sr;
 (ts) ts, tsh, dz; (n) n, ny, ng, mv; (m) m; (l) l, kl, gl, bl, rl, r, dbr, y, dbv, w, db, b, '; (s) s, sh, z, zh, a;
 (z) b, '.

The second-Syllable lexical item of each of these eleven types of Juncture Piece can be classified accordingly, as p-Piece, t-Piece, k-Piece, etc. after the type of Juncture Piece. Thus, the lexical items in 21213131, (i), which are described there as n-Piece (Initial) are also p-Piece (Juncture), those in (ii) are both n-Piece (Initial) and t-Piece (Juncture), and those in (iii) both n-Piece and k-Piece. Each of the examples of n-Initial, z-Initial, m-Initial, b-Initial and g-Initial lexical items can then be given an additional classification, in accordance with type of Juncture Piece. By way of example the following Verb lexical items are classified as:

- p-Piece 'bul/phul, 'phar, 'bar, 'bud; spung, phan, phebs
- t- " 'du, 'dug, 'ded, 'dod, ldang; thar, thob; mtshun,
'dul; btags, rdung
- k- " bskul, 'khor, 'gal, 'gor, 'gag, 'gyur; skvabs,
skye, skvel/bskval, bskor, khyab, mkhyen, 'khyud,
dgo/dgos, rgvag, rgvas, rgvugs, bsgyur
- c- " bcug/'jug, 'jag, 'byor; bcar, chad, byed, sbvong/
sbyangs; mchod, bcad
- tr- " 'khrug, 'gro, 'dri/dris, 'dre/dres; skrag, grub,
sgrig, drag, dran, sreg; dkrog, bris

t ^h s-Piece	<u>'dzing</u> , <u>'dzom</u> , <u>'dzeg</u> , <u>'dzug</u> ; <u>btsum</u> , <u>rtsis</u> , <u>rtsed</u> , <u>rtsom</u> , <u>brtse</u> , <u>tshong</u> ; <u>btsug</u>
n- "	<u>bsngal</u> , <u>nves</u> ; <u>smvo</u> , <u>mnved</u>
m- "	
l- "	<u>klog</u> , <u>slob/bslabs</u> , <u>blug/blugs</u> , <u>lus</u> , <u>log</u>
s- "	<u>zhu/zhus</u> , <u>bzhugs</u> , <u>gzhol</u> , <u>gzigs</u> , <u>sub</u> , <u>bzhangs</u> , <u>bshags</u> , <u>bshad</u> , <u>srung</u> ; <u>bzhag</u> , <u>bshal</u> , <u>zin</u> , <u>bzo</u> , <u>bsu</u> , <u>bzi</u> , <u>bsho/bshos</u>

Even though the exponents of each term of the Juncture system have been stated and exemplified, it is important to illustrate the phonetic variation of both first and second Syllable of the Juncture Piece in order to show that this variation is, often in conjunction with Tempo, a function of type of Juncture Piece. This phonetic variation is considered in the order p, t, k, c, t^hr, t^hs, n, m, l, s, q.

1. p

The second Syllable of the p Piece is characterized initially by labiality (**mb b**; 21213131, 1; 21213132, 1) except in the following types of Piece:

- i. z Initial, g Quality, Vb. + Part.(ft) 1:/a:/ɔ:/u:g
(212131112, 1, b)
- ii. " " , " " , Noun (ft) ɹ/a/ʌ/v/ɔg
(21213132, 1)
- iii. " " , ɲ " , Vb. + Part.(ft) ɹ/a/v/ɔɲ
(212131112, 1, b)

iv. z Initial, r Quality, Vb. + Part.(ft) 1/c/y/e/a/p/ər
(212131112, 1, b)

The labiality is accompanied by plosion (**b**), and, in the n Initial Piece, in appropriate circumstances by nasality and plosion (**mb**).

The first Syllable of the p Piece is characterized by final labiality as follows:

i. g Quality, n Initial (ft) (**m**) (21213131, 1)

ii. n " , (") (**m**) (" , " ; 21213132, 1)

iii. n " , (**m**) (" , " ; " , ")

The p Piece is regularly indicated in the orthography by one or other of the letters p, ph, and b initially in the second Syllable (except initial db-, py-, by-, pr-, phr-, br-, and bl- and the syllables ba and bo).

The second-Syllable lexical item of a p Piece can be classified as p-Piece. The n-Initial and z-Initial lexical items listed for the p Piece at 212131112, 1, b (pa/ba/ga/nga/ra), at 21213131, 1 (n Piece, e.g. 'bul/phul, 'phar, 'bar), and at 21213132, 1 (z Piece, e.g. spung, phan, sbag) are therefore also classifiable as p-Piece.

ii. t

The second Syllable of the t Piece is characterized initially by dentality (nd d t md (pt(h) bd; 21213131-2, 11; 21213133-4, 1). The dentality is accompanied by

plosion (**d t(h)**), and, in the n Initial Piece, in the appropriate circumstances, by nasality and plosion (**nd**). It is also accompanied by voice or voicelessness, and by aspiration, according to type of Piece, as follows:

voice:	n	Initial (nd d) (21213131, 11)
	z	" (d) (21213132, 11), but only in Fast-Tempo utterances of the z/g/d/b Quality Piece for Tone-1 h lexical items. ¹
	m	" (md d) (21213133, 1)
	b	" (bd d) 21213134, 1), Tone-2 lexical items only.
voicelessness:	z	" z/g/d/b Quality (t) (21213132, 11) Tone-1 h lexical items only.
	b	" z Quality (pt , pth (st)) (21213134, 1)
aspiration:	b	" z Quality (pth)(st) (21213134, 1) Tone-1 h lexical items.

Dentality characterizes the final of the first Syllable of the t Piece as follows:

- i. g Quality, n/m Initial (ft) (**n**) (21213131, 11; 21213133, 1)
- ii. n " , z/b " (") (**n**) (21213132, 11; 21213134, 1)
- iii. n " (**n**) (21213131-2, 11; 21213134, 1)

¹For h (and H) see the Aspiration system (212134).

The t Piece is regularly indicated in the orthography by one or other of the letters t, th, or d (except dr-) initially in the second Syllable.

The second-Syllable lexical item of a t Piece can be classified as t-Piece. The n-, z-, m-, and b-Initial lexical items listed for the t Piece at 21213131, ii (n Piece, e.g. dwogs, lta, 'thug), at 21213132, ii (z Piece; e.g. thebs, rten, dar), at 21213133, i (m Piece; e.g. methun, mdu, 'dul), and at 21213134, i (b Piece; e.g. btagg, thud, gdan) are therefore also classifiable as t-Piece.

iii. k

The second Syllable of the k Piece is characterized initially by velarity (ŋ g mɣ x), prevelarity (gɟ b'gɟ p'kɟ), or palatality (ɟ) (21213131, iii; 21213132, iii; 21213133, ii; 21213134, ii). The distribution of these three features in relation to the Initial, the Quality, and the Tempo systems is:

velarity: n/z/m Initial (21213131-3)

prevelarity: z Initial, ŋ/n Quality (21213132, iii)

 b " (21213134)

palatality: g " , z/g/d/b/m/r Quality (21213132, iii).

To some extent these features are complementarily distributed; but in types of Piece in which velarity contrasts with either

prevelarity or palatality, a further prosodic system is set up, to account not only for this consonantal distinction but also for the associated difference in degree of backness of vowel (Palatalization; 2121324). All three features can be accompanied by plosion (g gJ kJ; 21213131-2, iii; 21213133, ii); in the n Initial Piece the velarity is, in appropriate circumstances, accompanied by nasality and plosion (ŋg 21213131, iii); and, in z-Initial z/b-Quality Verb + Particle Pieces in Fast Tempo the velarity is accompanied by friction (ɣ; 21213132, iii).

Voicelessness (p'kJ) combines with prevelarity in the b-Initial z-Quality Piece for Tone-1 lexical items, except in Fast-Tempo utterances (21213134, ii); otherwise it is voice that is co-articulated with these features.

Velarity characterizes the final of the first Syllable of the k Piece as follows:

- | | |
|----------------------------|--|
| 1. n Quality | (ŋ) (21213131-2, iii;
21213134, ii) |
| ii. m " , n/z Initial (ft) | (ŋ) (21213131-2, iii;
21213134, ii) |

The k Piece is regularly indicated in the orthography by one or other of the letters k, kh, or g (except kr-, khr-, gr-, kl-, and gl-) initially in the second Syllable.

The second-Syllable lexical item of a k Piece can be

classified as k-Piece. The n-, z-, m-, and b- Initial lexical items listed for the k Piece at 21213131, iii (n Piece; e.g. bskul, khams, mgo), 21213132, iii (z Piece; e.g. ka, khang, ga), 21213133, ii (m Piece; e.g. mgvogs), 21213134, ii (b Piece; e.g. skya, brgva, brgyad) are therefore also classifiable as k-Piece.

iv. c

The second Syllable of the c Piece is characterized initially by contact of the dorsum with the forward part of the hard palate and the back of the alveolus (ndz dz tʃ mdz p'tʃ b'dz k'tʃ g'tʃ; 21213131-2, iv; 21213133-4, iii; 21213135, i). This dorso-palatality is accompanied by affrication (dz tʃ), with friction (ʃ) as an alternative, but only in a single instance in Fast Tempo (ʃy:zo zhus-byas having asked; 21213132, iv, z), and, in the n-Initial Piece, in appropriate circumstances, by nasality and affrication (ndz). These features are accompanied by voice and voicelessness, and by aspiration, as follows:

voice:	n Initial	(<u>ndz dz</u>)(21213131, iv)
	z	" (<u>dz</u>)(21213132, iv) (i) n/n/m/r Quality
		(ii) z/g/d/b Quality,
		but only in ft utterances for Tone-1 h lexical items
	m	" (<u>mdz dz</u>)(21213133, iii)

b Initial (**bd₃ d₃**) (21213134, 111) (1) ŋ/n/m/r
Quality

(11) z/g/d/b
Quality, but
excluding Tone-1
h lexical items,
and, for the
remainder (Tone-1
h and Tone-2 h),
only in ft
utterances.

voicelessness: z " (**tf**) (21213132, 1v) z/g/d/b Quality,
Tone-1 h lexical items
only

b " (**tf tʃh**) (21213134, 111) z/g/d/b Quality

g " (**ktʃ gtʃ tf**) (21213135, 1)

aspiration b " (**tʃh**) (" , ") z Quality,
Tone-1 h
lexical items,
in ft
utterances,
only.

Palatality characterizes the final of the first

Syllable of the Piece as follows:

g Quality, n Initial (ft) (**p**) (21213131, 1v)

ŋ " , z " (**ʃ**) (") (21213132, 1v)

n " , (") (21213131-2, 1v; 21213133-4, 111);

and nasality of vowel in the following

ŋ Quality, n/z Initial (ft) (**ṽ:**) (21213131-2, 1v)

n " , b " (") (") (21213134, 111)

The c Piece is regularly indicated in the orthography
by one or other of the letters c, ch, or j initially in the

second Syllable, or by one of the combinations py, phy or by.

The second-Syllable lexical item of a c Piece can be classified as c-Piece. The n-, z-, m-, b-, and g-Initial lexical items listed for the c Piece at 21213131, iv (n Piece; e.g. lcags, chag, 'jag, 'byor), 21213132, iv (z Piece; e.g. bcar, chad, ja, spvi, phyi, byung), 21213133, iii (m Piece; e.g. mchod, mched), 21213134, iii (b Piece; e.g. bcad, chas, spyang, 'phyid, bva), and 21213135, i (g Piece; e.g. gcig) are therefore also classifiable as c-Piece.

v. tr

The second Syllable of the tr Piece is characterized initially by (i) alveolarity, apicality, and affrication (ndr dr tr p'tr p'tg b'dr; 21213131-2, v; 2121314, iv) or (ii) labial plosion or friction and apico-alveolar friction (br pr)(21213134, iv).¹ The alveolarity and apicality are additionally accompanied in the n Initial Piece, in the appropriate circumstances, by nasality and affrication (ndr). These features are further accompanied by voice and voicelessness, and by aspiration, as follows:

¹The latter features appear to be restricted to Tone-2 items.

voice: n Initial (**ndr dr**)(21213131, v)

z " (**dr**)(21213132, v) (i) ŋ/n/m/r Quality

(ii) z/g/d/b " ,
but only in ft
utterances for
Tone-1 h lexical
items

b " (**bdr br βr dr**)(21213134, iv)

(i) ŋ/n/m/b Quality

(ii) z/g/d " ,
but only in ft
utterances for
Tone-1 lexical
items

voicelessness z " (**tr**)(21213132, v) z/g/d/b Quality,
Tone-1 h lexical items

b " (**ptr ptr tr tr**)(21213134, iv) z/g/d,
Tone-1 lexical
items only.

aspiration: b " (**ptr ptr**)(21213134, iv), z/g Quality,
Tone-1 h lexical
items, in st
utterances only.

Alveolarity and apicality characterize the final of the first Syllable of the tr Piece as follows:-

g Quality, n Initial (ft) (n) (21213131, v)
 n " , n/z " (ft) (n) (21213131-2, v)
 n " (n)

The fr Piece is regularly indicated in the orthography by one or other of the combinations of letters kr, khr, gr, dr, pr, phr, br (and sometimes sr) initially in the

second Syllable.

The second-Syllable lexical item of a $\hat{t}r$ Piece can be classified as $\hat{t}r$ -Piece. The n-, z-, and b-Initial lexical items listed for the $\hat{t}r$ Piece at 21213131, v (n Piece; e.g. 'khrug, 'gro, 'dri/dris), 21213132, v (z Piece; e.g. dkrum, phrag, srab), and 21213134, iv (b Piece; e.g. dkrog, khra, bris) are therefore also classifiable as $\hat{t}r$ -Piece.

vi. $\hat{t}s$

The second Syllable of the $\hat{t}s$ Piece is characterized initially by (i) contact of the blade with the forward part of the alveolar ridge (**dz**) or (ii) approximation of the blade to this area (**nz z mz p's b'z**; 21213131-2, vi; 21213133, iv; 21213134, v). The alveolarity and coronality are additionally accompanied in the n Initial Piece, in the appropriate circumstances, and in the m Initial Piece in Fast Tempo, by nasality and friction (**nz**). These features are further accompanied by voice (**dz nz z mz b'z**)(21213131-2, vi; 21213133, iv; 21213134, v), except in the b Initial Piece in Slow-Tempo utterances (**p's**) (21213134, v).

Alveolarity and coronality characterize the final of the first Syllable of the $\hat{t}s$ Piece as follows:

g Quality, n Initial (ft) (**n**)(21213131, vi)
 ŋ " , n/z " ((**n**))(21213131-2, vi)
 n " (**n**)(21213131-2, vi)

The *t̂s* Piece is regularly indicated in the orthography by one or other of the letters *ts*, *tsh*, *dz* initially in the second Syllable.

The second-Syllable lexical item of a *t̂s* Piece can be classified as *t̂s*-Piece. The *n*-, *g*-, *m*-, and *b*-Initial lexical items listed for the *t̂s*-Piece at 21213131, vi (*n* Piece; e.g. 'dzing, tsho/'tsho, mtsham), 21213132, vi (*z* Piece; e.g. rtsis, tshwa, rdzi), 21213133, iv (*m* Piece; e.g. mdzad, mtshar), and 21213134, v (*b* Piece; e.g. btsan, btsug) are therefore also classifiable as *t̂s*-Piece.

vii. n

The second Syllable of the *n* (Juncture) Piece is characterized initially by nasality + non-labiality (**n** **ŋ** **ɲ** **mp** **ɲp**; 21213132, vii; 21213134, vi; 21213135, ii). The nasality + non-labiality is additionally accompanied, in the *b* Initial Piece, by nasality + labiality (**mp**; 21213134, vi), and in the *g* Initial Piece, by nasality + velarity (**ɲp**; 21213135, ii), in the appropriate circumstances. These features are always accompanied by voice.

Nasality characterizes the final of the first Syllable of the n Piece as follows: g Qual

g Quality, z Initial (st) (ŋ) (21213132, vii)

b " , " " (disyll. Noun) (m) (21213132, vii)
(Vb. + Part.) (ft) (m) (21213132, vii)

In those types of n (Juncture) Piece which are also ŋ or n (Quality), the nasality characterizing the final of the first Syllable of the Piece is vocalic, and is accompanied by long duration (Ṽ:), with, for the ŋ Piece, appropriate vowel qualities.

The n Piece is regularly indicated in the orthography by one or other of the letters ng, ny, n, my initially in the second Syllable.

The second-Syllable lexical item of a n Piece can be classified as n-Piece. The z-, b-, and g-Initial lexical items listed for the n (Juncture) Piece at 21213132, vii (z Piece; e.g. na, ngo, smyug), 21213134, vi (b Piece; e.g. smyo, (b)rnyan, mnyed), and 21213135, ii (g Piece; e.g. gnyis), are therefore also classifiable as n-Piece.

viii. m

The second Syllable of the m (Juncture) Piece is characterized initially by nasality + labiality (m; 21213132, viii) and by voice.

Nasality characterizes the final of the first Syllable of the m Piece as follows (21213132, vii)

g Quality, z Initial (st) (**ŋ**) disyll.-Noun Piece only
 b " , " " (ft) (**m**)

In those types of m (Juncture) Piece which are also **ŋ** or **n** (Quality), the nasality characterizing the final of the first Syllable of the Piece is vocalic, and is accompanied by long duration (**ṽ:**), with, for the **ŋ** Piece, appropriate vowel qualities.

In Fast-Tempo utterances the exponent of m for the b Quality Piece is alternatively (labiality + nasality + short duration), which both first-Syllable final and second-Syllable initial could be said to share (21213132 viii, e.g. **tʃhɪ(m)me:** chibs-sməd crupper); this combination of features is also the exponent of m in the Fast- and Slow-Tempo utterances alike, in the m Quality Piece, e.g. **bamɛ:** 'bam-smən gout medicine. It is these two exponents that make it necessary to draw a distinction between the m and the n Juncture Pieces.

The m Piece is regularly indicated in the orthography by the letter **m**, except when qualified by ya-btags (**my**).

The second-Syllable lexical item of a m Piece can be classified as m-Piece. The z-Initial lexical items listed for the m (Juncture) Piece at 21213132, viii

(z Initial Piece, e.g. ma/mi, mus, dm̄ar, sman, are therefore also classifiable as m-Piece.

ix. 1

The second Syllable of the 1 Piece is characterized initially by laterality (**l b'1**), by apico-alveolar friction (**r**), or by a non-syllabic front spread or back-rounded vowel (**j w**) (21213132, ix; 21213134, vii), and by voice.

In those types of 1 Piece which are also ŋ or n (Quality) the nasality characterizing the final of the first Syllable of the Piece is vocalic, and is accompanied by long duration (**ĩ:**), with, for the ŋ Piece, appropriate vowel qualities.

The 1 Piece is regularly indicated in the orthography by the gsal-byed l and by la-btags (kl, gl, bl, rl, sl), except zl, by r, by y, by dby, and by w (and, less regularly, by b in ba).

The second-Syllable lexical item of a 1 Piece can be classified as l-Piece. The z-Initial and b-Initial lexical items listed for 1 at 21213132, ix (z Piece; e.g. red, vin, dbang, wa) and 21213134, vii (b Piece, e.g. gla, bslad/las) are therefore also classifiable as l-Piece.

x. s

The second Syllable of the s Piece is characterized initially by glottality (ʔ) or by dorso-alveolar or coronal-alveolar friction (ʃ p'ʃ b'ʃ s p's k's g's). The latter features (s ʃ) are invariably accompanied by voicelessness; and voicelessness also accompanies the labial and the velar occlusion that, in appropriate circumstances, characterize the b Initial Piece (p'ʃ p's) and the g Initial Piece (k's) respectively, except in Fast-Tempo utterances (b'ʃ gs)

In those types of s Piece which are also ŋ or n (Quality), the nasality characterizing the final of the first Syllable of the Piece is vocalic, and is accompanied by long duration (ṽ:), with, for the ŋ Piece, appropriate vowel qualities.

The s Piece is regularly indicated in the orthography by one or other of the letters s, sh, z, or zh initially in the second Syllable.

The second-Syllable lexical item can be classified as s-Piece. The lexical items listed for s at 21213132, x (z Initial Piece, e.g. shig, song, zhib, zam) at 21213134, viii (b Initial Piece, e.g. zhi, bshal, zin, bsu) at 21213135, iii (g Initial Piece, e.g. gsum), are therefore also classifiable as s-Piece.

x1. q

The second Syllable of the q Piece is characterized initially by a vocalic (**V**); but in Words in which (i) this Syllable is also ə-Piece or w-Piece (Labialization, 2121321) and (ii) the following Syllable is the Nominal-Particle gi/gyi/kvi/'i, its initial feature is a labio-velar semi-vowel (**w**) (21213132, x).

In those types of q Piece which are also n (Quality), the nasality characterizing the final of the first Syllable is vocalic, and is accompanied by long duration (**Ṽ:**); in those which are also g, ŋ, or r (Quality), the first Syllable is characterized by short vowel duration and velar plosion, velar nasality, or apico-alveolar friction respectively (**g, ŋ, r**).

The q Piece is regularly indicated in the orthography by the letter ' initially in the second Syllable, and occasionally also by p.

The second-Syllable lexical item can be classified as q-Piece. The lexical items listed for q at 21213132, x (z Initial Piece, e.g. ba/nga/ra, bo/-o, -u/gu, 'od, are therefore also classifiable as q-Piece.

21213141. The Juncture System and Phonetic Variation
in the First Syllable

Just as the Quality system provides a means of accounting for phonetic variation in the lexical items that appear as second Syllable of the disyllabic Quality Piece, by associating them with corresponding differences in the phonetic features of the first Syllable, so the Juncture system accounts for the phonetic variation of first-Syllable lexical items, by associating them with phonetic differences in the second.

In the p, t, k, c, $\hat{t}r$, $\hat{t}s$, n, m, l, and s types of Juncture Piece a z (Quality) Verb is characterized by one or other of the vocalic features $\textcolor{red}{i}$, $\textcolor{red}{e}$, $\textcolor{red}{a}$, $\textcolor{red}{\wedge}$, $\textcolor{red}{o}$, or $\textcolor{red}{\circ}$, provided that that Piece is also an example of the s Quantity Piece (2121312), but in the q Piece the z Verb is characterized, correspondingly, by $\textcolor{red}{e}$, $\textcolor{red}{e}$, $\textcolor{red}{a}$, $\textcolor{red}{o}$, or $\textcolor{red}{\circ}$; e.g.

p: shi-ba- $\textcolor{red}{f}i$ - phye-ba- $\textcolor{red}{t}f\textcolor{red}{h}\textcolor{red}{e}$ - blta-ba $\textcolor{red}{t}a$ - bzo-ba- $\textcolor{red}{s}o$ -
bsru-ba- $\textcolor{red}{s}o$ -

q: shi-ba $\textcolor{red}{f}e$: phye-ba $\textcolor{red}{t}f\textcolor{red}{h}\textcolor{red}{e}$: blta-ba $\textcolor{red}{t}a$: bzo-ba $\textcolor{red}{s}o$:
bsru-ba $\textcolor{red}{s}o$:

(p: 'died', 'opened', 'looked', 'made', 'churned')

q: 'to die', 'to open', 'to look', 'to make', 'to churn')

By means of the Juncture system it is possible to associate with each other, and with the same (z-Piece) Verb, the following pairs of vowels: $\textcolor{red}{i}/\textcolor{red}{e}$, $\textcolor{red}{a}/\textcolor{red}{a}$, and $\textcolor{red}{o}/\textcolor{red}{o}$.

The g-Piece (Quality) Verb is characterized by variant phonetic features, according to type of Initial Piece, type of Juncture Piece, grammatical type of Piece, and Tempo, as follows:

i. vowel features

			<u>Juncture</u>	<u>In.</u>
long	duration	+ i/a/ʌ/u/o/ɔ	{ k/n/m/l p/t/c/t̃s/s/q t̃r/s	z/b z Vb. + Part. " disyll.-N.(ft)
short	"	+ i/a/ʌ/ɔ/v/o	p/t/k/c/t̃r/t̃s	n/m
"	"	+ i/a/ʌ/ɔ/v	{ p/t/c/t̃r/t̃s/s/q p/n/l/s/q	z/b " z Vb. + Part.(st)
"	"	+ ɔ	p	z Vb. Comp/ Part + Part.

ii. final-consonant features

vel.	+ occ.	+ voice (g')	{ p/t/c/t̃r/t̃s/s p/n/l/q	z/b disyll.-N, z Vb. + Part. (st)
"	+	" + voicels.(k')	{ c/t̃r s	z/b disyll.-N. " (st)
"	+	plos. (g)	{ p/q p q	z Vb. + Part.(ft) " disyll.-N. (") " "
"	+	fric. + voice (ɣ)	{ l s	(st) (ft)
"	+	" + voicels.(x)	s	(st)

vel. + nas. (<u>ŋ</u>)	p/t/k/c/t̃r/t̃s	n/m	(st)
	n/m		(st)
lab. + " (<u>m</u>)	p	n	(ft)
dent. + " (<u>n</u>)	t	n/m	(")
pal. + " (<u>ɲ</u>)	c	"	(")
alv. + " (<u>ɳ</u>)	t̃r/t̃s	"	(")
	k/n/m/l		
	s	Vb. + Part.	
	"	disyll.-N.	(")

For g-Piece forms the vowels associated by the Juncture system are ɪ/ɪ:, a/a:/ʌ:, ɔ/u:, and ʊ/ɔ:/o:/o:; and the final consonants g g' k' ɣ x ɲ m n ɲ n are associated with each other and with final vocalic features.

ŋ-Piece forms, whether Noun, Verb, or Particle, are characterized by variant phonetic features, according to type of Juncture, and Tempo, as follows:

i. vowel features

short dur. + <u>ɪ/a/ʌ/ɔ/v</u>	p/t/k/c/t̃r/t̃s/q	
long " + <u>ɪ/a/ʌ/ɔ/ɔ</u> + nas.	$\begin{cases} c/t̃s \\ n/m/l/s \end{cases}$	(ft)

ii. final-consonant features

velarity (<u>ɲ</u>)	dent. (<u>n</u>)	lab. (<u>m</u>)	pal. (<u>ɲ</u>)	alv. (<u>ɳ</u>)
p/t/k/c/t̃r/t̃s/q	t (ft)	p (ft)	c (ft)	t̃r/t̃s (ft)
none (i.e. vocalic nasality)				
n/m/l/s c/t̃r (ft)				

iii. syllabic features

q:	velarity + syllabicity (ft)	ḡ
p/t/k/c/ṭr/ṭs/q:	" + non-syllabicity	ṇ

The Juncture system provides a means of associating the vowels *ɪ* and *ĩ:*, *a/ʌ* and *ā:/ā:*, *ə* and *ē:*, and *ʊ/ɔ* and *ō:/ō:*, and the final consonants *ṇ*, *m*, *n*, *ṇ*, and *ṇ* with each other and with Syllable-final vocalic nasality. The forms *naḡ*, *naṇ*, *naṇ*, and *nā:* (*gnang*), for example, can then all be treated as phonetic variants of a single phonological form under differing prosodic (Juncture) conditions, and so can *taṇ*, *tam*, and *tā:* (*btang*), and *thṇ*, *thṇ*, and *thō:* (*mthong*).

d-Piece forms, both Verb and Particle, are characterized by variant features as follows:

p/s:	short vowel duration + <i>ɪ/ə/ɛ</i> (Verb-Complement Piece, 21213112)
p/t/k/c/n/l/s/a/q:	long " " + <i>ɪ/ə/ɛ/y/ə</i>

Through the Juncture system the vowels *ɪ* and *ə(:)* (*red*), *ə* and *ə:* (*yod*), and *ɛ* and *ɛ:* (*med/mad*), of Verb-Complement forms and the corresponding Particles (21213112), can be associated with each other.

The variant phonetic features of n-Piece lexical items are accounted for, in terms of the Juncture system and grammatical type of Piece, as follows:

i. vowel features

short duration	$\begin{cases} p/t/k/c/\hat{t}r/\hat{t}s \\ q \\ s \end{cases}$	Vb. + Part. Vb. Comp./Part. + Part.
long " + nasality	$\begin{cases} n/m/l/s \\ q \end{cases}$	disyll.-N. only

ii. final-consonant features

labiality (<u>m</u>)	$\begin{cases} p \\ q \text{ (Vb. + Part. Piece)} \end{cases}$
dentality (<u>n</u>)	t
alveolarity (<u>n</u>)	$\begin{cases} \text{apicality } \hat{t}r \\ \text{coronality } \hat{t}s \end{cases}$
palatality (<u>p</u>)	c
velarity (<u>ŋ</u>)	k
none (i.e. <u>Ṽ</u> .)	$\begin{cases} n/m/l/s \\ q \text{ (disyll.-Noun Piece)} \\ c \text{ (ft)} \end{cases}$

Here the Juncture system associates the vowels i with ī: (and, in the Verb-Complement type of Piece, ī), e/ɛ with ē/ī:, y with ȳ:, and o/y with ō/ȳ:, and the final consonants m, n, ŋ, p, and n with each other and with vocalic nasality.

The phonetic forms **tʃhɪm**, **tʃhɪn**, and **tʃhɪ:** (phyin), for example, and **thəm**, **thyn**, and **thən** (thon), can then be attributed to single phonological forms under different Juncture conditions.

The variability of b-Piece forms is accounted for in terms of the Juncture and Initial systems, grammatical type of Piece, and Tempo, as follows:

i. vowel features

short duration + ɪ/ʌ/ə/v	p/t/k/c/n/l/s/a/q
long " + u/o (ft)	k (Vb. + Part.) (ft)

ii. final-consonant features

plosion (b) ¹	p/q
occlusion (b' p')	{ t/k/c/ʈr/ʈs/l/s n/m (Vb. + Part.)
friction (β)	k/c/ʈr/l/q (ft)
nasality (m)	{ n/m Initial n/m Junct. { Vb. + Part. } (ft) " " (disyll.-N) ²

¹This feature is shared with the initial of the second Syllable.

²In Fast-Tempo utterances this feature is shared with the initial of the second Syllable.

none

k (Vb. + Par.) (ft)

iii. voicing features of Syllable-final consonants

voice (**b b' β m**) $\begin{cases} p/t/k/c/n/l/\hat{t}r/\hat{t}s/q \\ s \end{cases}$

voicelessness (**p'**) $\begin{cases} s \\ t/c/\hat{t}r \text{ (st)} \end{cases}$

The vowels **u:** and **o:** can be associated with **△** and **v/△** respectively, and Syllable-final **b**, **b'**, **β**, and **m** can be associated with each other, and with certain final vocalic features, under differing Juncture conditions. By this means **gjb**, **jxb'**, **jxβ**, **jxm**, and **jxp'** (**rgyab**), for example, can all be associated with a single phonological form, and so can **tu:**, **tab'**, and **tap'** (**gtub**).

m-Piece Verbs show only the following degree of variation:

labiality (**m**) $\begin{cases} p/t/k/c/n/m/l/s/\hat{t}r/\hat{t}s/q \\ m \text{ (disyll. -Noun)}^1 \end{cases}$

velarity (**ŋ**) k

The Juncture system thus serves to associate **sam/s^am** and **s^ŋ** (**bsam**) with the same Verb.

¹This feature is shared with the initial of the second Syllable.

The degree of phonetic variation of r-Piece forms too is not great:

i. vowel features

short duration	+	ɪ/ɛ/y/ə/ɑ/ɔ/v	p/q (Vb. + Part.)(ft)
"	"	+ e/ɛ/ɑ/ʌ/ɔ/u	n (Initial)
long	"	+ i/e/ɛ/y/ə/ɑ/ʌ/u/ɔ/o	p/t/k/c/m/n/l/s/ tr/ts/q:

ii. final-consonant features

apico-alveolarity + friction	(r ɾ)	p/q (Vb. + Part. (ft) q (disyll.-Noun)
none		p/t/k/c/tr/ts/n/m/ l/s/q

Thus, for the r-Piece Verb **i:** is associated with **ɪ**, **e:** with **e** and **ɛ**, **ɛ:** with **ɛ**, **y:** with **y**, **ə:** with **ə**, **ɑ:/ʌ:** with **ɑ/ʌ** and **ɑ**, **u:** with **u** and **ɔ**, and **ɔ:/o:** with **ɔ/o** and **ɔ**; and Syllable-final **r** is associated with the appropriate vocalic features; e.g. **ju:**, **ɟɔr**, and **ɟɔɾ** (**'gyur**) are variant phonetic forms of the same phonological (Verb) form appropriate to different Juncture conditions.

212132. Prosodic Systems dealing with Labial and Associated Features

Four prosodic systems of this type are stated:

2121321, Labialization, for the Verb, Verb + Particle, and Particle + Particle Piece (21213211) and for the (monosyllabic) Particle Piece (21213212); 2121322, Fronting; 2121323, Rounding; 2121324, Palatalization.

2121321. Labialization

The Labialization is a three-term system: y, w, ə, whence y Piece, w Piece, and ə Piece. It is set up in order to account for inter-related labial features characterizing at least a whole Syllable, and in some types of Word extending over two or over three Syllables. For example, (i) initial velarity (k g ŋ) in the Verb Syllable can be associated with such labial and other features of the vowel as rounding (u u: o: ɔ ɔ: y y: ə ə:), (backness + spreading) (ɤ ʌ ʌ:), and openness (a a:), e.g. ge-byung (kɥo-) 'I heard', rnga-gi-'dug (ŋʌ-) 'he reaps', dga'-yong (ga-), 'it is a good thing to', but not with (spreading + frontness) (i i: e: ɛ ɛ:);¹

¹In 212132 the 'exotic' symbols ɪ, ɒ, ɑ, ɒ, and ɐ have been dispensed with in favour of i and i:, u and u:, a: and ʌ:, ɔ, and ə respectively. The vowels symbolized in 212131 by i, u, a, ɔ, and ə are symbolized here by i:, u:, a, ɔ: and ʌ: and ə respectively.

(ii) lip-rounding can be one of the features of the initial consonant of a Syllable only in Syllables in which lip-rounding is also a vowel feature. e.g.

mthong-byung (ṁth³:d³ṁ) 'I saw', ga-dus thon-pa-vin-na (ṁth^{em}-), 'when did it come out, I wonder;¹

(iii) the labial features that characterize a Verb Syllable may extend beyond that Syllable to the following Syllable or even to the following two Syllables: features of the the Particle Syllable gi/gvi/kvi and the Particle Syllable yod, the second and third Syllables of the following three Words, can vary in association with features of the Verb Syllable

¹The International Phonetic Alphabet's symbols for 'labialization' (ṁ) and 'palatalization' (ṁ̃, and ̣ for descenders) are used here to indicate lip-rounding and lip-spreading respectively in association with consonant symbols wherever the appropriate feature is not implied by the consonant symbol itself, as, for example, by j and q.

The only examples in which lip-rounding as an initial consonantal feature is not matched by lip-rounding as a vowel feature, dbang-gi-'dug (wṁ-), 'he is powerful', and dbang-ba-red (wṁ-), 'he was powerful', are suspected of being literary forms.

(gi, gŷ, gə; jə:, ɣə:):

tʃhiɡiʃə:	<u>byed-kyi-yod</u>	I do
ʃuɡŷɣə:	<u>zhu-gi-yod</u>	I serve
tʃʌ:ɡəjə:	<u>bcar-gvi-yod</u>	I visit

The Piece with which the Labialization system is concerned can therefore be mono-, di-, or tri-syllabic in extent.

The type of Labialization Piece that can extend over a maximum of three Syllables is the Verb - Particle, comprising a Verb Syllable and one, or two, Particle Syllables (21213211); the Labialization system also covers syntagmatically associated features of a single (Particle) Syllable (21213212).

21213211. Verb + Particle

The exponents of the three terms of the system are presented in the following order: y, 212132111; w, 212132112; ə, 212132113. Within each of these three sections the exponents are stated with reference to the Verb Syllable, and to the Particle Syllables of the di- and the tri-syllabic Piece. In the trisyllabic Piece these Particle Syllables are gi/gvi/kyi (second) and yod (third); in the disyllabic Piece they are the second Syllables (post-Verbal) gi/gvi/kyi, pa/ba/ga/nga/ra, byung, yong, yod, and rgvu, and (ii) the first Syllable ma/mi (pre-Verbal, 211142). The monosyllabic Piece

concerns only the Verb Syllable, whether as the only Syllable of a monosyllabic Word (Verb Word) or as a component Syllable of a (polysyllabic) Verb + Particle Word in which the Particles are not those listed above, i.e. Particles that do not vary according to the type of Verb + Particle Labialization Piece in which they are contained.

One of the Particles that vary phonetically according to the type of Labialization Piece in which it is contained is the Particle gi/gyi/kvi. Before stating the exponents of the terms y, w, and e it is necessary to point out that in disyllabic Pieces, this Particle, when it is either Word-final (i.e. in Inter-verbal Junction; ll) or followed by the Interrogative-Particle Syllable pas, is uniformly characterized by (closeness + frontness + spreading) (ḡi, ḡi) regardless of whether the preceding Verb Syllable is characterized by spreading or by rounding, e.g. (yP) phebs-kvi-pas (phe:ḡi-), 'are you coming', (wP) 'gro-gis (druḡi), 'I go', (eP) bsam-gvis (samḡi), 'I think' (2121311311).¹

¹ 'Closeness' is used for a degree of closure closer than half-close (i i: u u:).

y: ga-re zer-gvi-yod-pa (sigi-) what do you say
 w: 'thung-gi-'dug-gas (thugi-) does he drink
 e: za-gi-man (sagi-) I shall not eat.

(it is significant that all the above examples are taken from recordings in which they were read from a printed text). In all other circumstances gi/gvi/kvi does provide part of the exponency of y, e, and w.

212132111. y.

The exponents of y are drawn from (1) the Verb Syllable, (2), the Nominalizing-Particle Syllable pa/ba/ga/nga/ra, but only within the zs Piece (21213122), (3), as second Syllable, with or without the Particle yod as third Syllable, the Particle Syllable gi/gvi/kvi, (4) the Particle Syllables yod, yong, byung, rgvu, and myong/nyung, each of which can be the second Syllable of the Piece, (yod can also be the third), (5) the Particle Syllable ma/mi preceding the Verb.

Since there is a relationship between initial consonantal features of the Verb Syllable and its vocalic features, it is necessary to include among the exponents at (1) all its initial features, for comparison with those of the w- and e-Piece. The y exponents are the following:

1. Verb Syllable

a. one of the following vowel features

- i. (spreading + frontness + closeness/half-closeness): **i i: I(:) e(:)**¹
- ii. (" + " + half-openness + shortness: **e**
- iii. (" + " + " + nasality)
(o Closure Piece): **ɛ:**

b. initial lip-spreading: **tʃh ʃ ph s, etc.**²

c. one of the following initial consonant features:

- i. (plosion + labiality/dentality/palatality or
prevelarity; cf. w, ə): **p b t d c/kj ʃ/gj;**
- ii. (affrication + dorsality/apicality/
coronality): **tʃ dʒ tʃr dʒr tʃs;**
- iii. (nasality + labiality/palatality; c.f. w, ə): **m n;**
- iv. (laterality + voice): **l;**
- v. friction **f ʃ s z;**
- vi. palatal semi-vowel: **j;**

¹'Closeness' is used for a degree of closure closer than half-close (**i i: u u:**).

²The letters **tʃ, dʒ, ʃ, ʒ, c, n, j, kj, gj** serve for both palatality and lip-spreading when features of the Verb Syllable.

e.g.

- | | |
|---|--------------------------|
| a. i. <u>byed-dus</u> (<u>tʃhi-</u>) <u>sgang-ni</u> | when I do |
| <u>phebs-nyan</u> (<u>phe:-</u>) | someone who comes |
| ii. <u>ming-la ga-re zer-ra-yin-na</u> | what is it called, |
| (<u>scr-</u>) | I wonder |
| <u>zhu thub-pa byed-dgos-red</u> | have you got to be |
| (<u>tʃhe-</u>) <u>dang</u> | able to offer |
| iii. <u>len-shig</u> (<u>ʃe:-</u>) | take it |
| <u>mkhyen-song</u> (<u>kʃe:-</u>) | they knew |
| b. <u>zer-na</u> (<u>se-</u>) | supposing that |
| <u>a-yin</u> (<u>-ji:-</u>) | I doubt whether I am |
| c. i. <u>bris</u> (<u>ʃi:-</u>) [<u>gnang-pa'i</u>] | of what you have written |
| <u>mkhyen-gvi-'dug</u> (<u>chingi-</u>) | he knows |
| ii. <u>phyin-ni</u> (<u>tʃhi:-</u>) | having gone |
| <u>brjes</u> (<u>dze:-</u>) <u>'gro-gi-'dug-ka</u> | it goes and changes, |
| | does it not |
| iii. <u>smin-gyi-red</u> (<u>mingi-</u>) | it will ripen |
| <u>sku mnyel-ma-song-nga</u> (<u>pe:-</u>) | so you did not get |
| | tired, then |
| iv. <u>sleb-ni</u> (<u>ʃe:-</u>) | having arrived |
| v. <u>shes-pa</u> (<u>ʃem-</u>) | knowing |
| <u>la red-na</u> (<u>ʃe:-</u>) | mm, yes it is |
| <u>nga-la 'dzing-byung</u> (<u>ʒi:-</u>) | they attacked me |
| vi. <u>vin-na'i</u> (<u>ji:-</u>) | however |

A y-Piece Verb cannot be characterized by initial velarity (**k g ŋ**), (dentality + nasality) (**n**), glottality (**ʔ**), or an initial vocalic (**V**) (but cf. the w- and the ə-Piece, 212132112-3).

2. Nominalizing Particle pa/ba/ga/nga/ra

In y Pieces that are also s (21213122) this Particle is characterized by:

(spreading and frontness):

e: ε:

e.g.

shi-ba (**ʃe:**) dying

phye-ba (**tʃhe:**) opening

3. Verbal Particles gi/gyi/kyi and yod

a. (gi/gyi/kyi, yod) initial spreading:

ǰ, j

b. (gi/gyi/kyi)(frontness + closeness + spreading):

i

e.g.

shes-kyi-yod-ma-red (**ʃiǰi-**)

I do not think they know

ga-re zer-gyi-['dug-]na (**siǰi-**)

what is it called, mm

brtson-'grus byed-kyi-yod (**tʃhiǰijə:**)

I am hard at work on

ming-la ga-re zer-gyi-yod-pa
(**siǰijə:-**)

what is your name
(G. and R.)

4. the Particles yod, yong, byung, rgyu, myong/myung
initial spreading

j dʒ ɔ̃ ʃ j̃

e.g.

ga-re ga-re bzhes-yong (jɛ:jʃ)

what things do they
eat

bsgrig-rgyu (dʒɪɔ̃ju)

to be got ready

mkhven-byung-ngas (kʃɛɲdʒʊn-)

did you know

The phonetic forms -ɛ:/-ɛ:, ɔ̃, jɛ:, jɔ̃/jʃ:, dʒʊn, ɔ̃ju, and j̃ʊn the y-Piece forms of ba/pa/ga/nga/ra, gi/gvi/kvi/, yod, yong, byung, rgyu, and myong/myung respectively. Verbs that can be exemplified in the y-Labialization Piece are classified prosodically as y-Piece, e.g. byed, phebs, vin, bris.¹

5. the Particle ma/mi

non-rounding:

a/ɛ

e.g.

la ma-red (maɛ:)

no it is not

212132112. w

The exponents of w are also drawn from (1) the Verb Syllable, (2) the Nominalizing-Particle Syllable pa/ba/ga/nga/ra in the zs Piece, (2121312), and one or two

¹ Since the y-Piece Verbs are regularly indicated in the orthography by i and e, these letters, in the Verb Syllable, also serve to indicate the disyllabic and the trisyllabic y Piece.

exceptional instances of the Verb Syllable (dgo/dgos, yod, 'gro) and the Past-Particle Syllable pa/ba/ga/nga/ra, (3) the Particle Syllable gi/gvi/kyi as second Syllable, with or without the Particle yod as third Syllable, (4), the Particle Syllables yod, yong, rgyu, byung, and myong/nyung each of which can be the second Syllable of the Piece (yod can also be the third), (5) the Particle Syllable ma/mi, preceding the Verb.

Because of the relationship that there is between initial consonantal features of the Verb Syllable and its vowel features, all the initial features of the w-Piece Verb have been listed, at (1), for comparison with those of the y- and the ə-Piece. Of these the following initial features, though shared with the ə Piece, do not characterize the y Piece; they can therefore be treated not only as w (and ə) exponents but also as non-y criteria: velarity (k g ŋ), (dentality + nasality) (n), vocalic (ø ɔ), glottality (ʔ). One feature, Piece-initial (friction + apicality + voicelessness) (ɾ), is confined to the w Piece, and could therefore be stated as a w criterion.

The w exponents are:

1. Verb Syllable

a. Rounding, as a vowel feature: u u: ũ: o: ɔ ɔ: ɐ

ɐ: ɘ: ɤ y: ʏ:

b. initial rounding

s̥ th gw, etc.¹

c. initial (spreading + palatality) ɲ ɡʃ/ɹ tʃ dʒ ʃ kʃ/c ʃ

d. one of the following sets of features:

i. (plosion + labiality/dentality/palatality/

prevelarity/velarity): p b t d c/kʃ ɹ/ɡʃ k ɡ

ii. (affrication + dorsality/apicality/

coronality): tʃ dʒ tr dr ts

iii. initial (nasality + labiality/dentality/palatality/

velarity): m n ɲ ŋ

iv. (laterality + voice):

l

v. friction:

r ʃ s z²

vi. palatal semi-vowel:

j

vii. glottality:

ʔ

viii. initial vowel

ɔ ɐ

¹Where velarity (k ɡ ŋ) is one of the Piece-initial features, the lip-rounding is sufficiently prominent to suggest a cluster comprising plosive, or nasal, and labio-velar semi-vowel (kw ɡw ŋw).

²It is assumed to be fortuitous that no example of (friction + apicality + voice) (r), otherwise a common initial complex, has been observed in the thesis material.

e.g.

- a. gsung-dus (sun-) sgang-ni when we speak
a-vod (-jə:-) I doubt whether I have
bka'-mol ra-po zhus (ʃy:-) mchog we must have a conver-
sation
- b. mt hong-byung (thʃ:dʒũ) I saw
dgos-yod (ḡwə:ɣə) I need
- c. bzhugs (ʃu:-) bzhugs-pa-vin-na
(ʃu:-) used you to live¹
khungs dag-po ma-byung-shes
(-dʒũ:-) since the basis of it
was not clear
- d. 1. gsungs thub-yag (thū:-) for being able to speak
skon-sa'i (kwom-) a place where there is a
shortage too
skyon-roḡ (cə:-) please print
11. btsugs (tsu:-) thugs-na if he can establish
'gro-dus (dru-) gang-ni when I went
byug-dgos-yod-na (tʃhu:-) or does he have to spread
111. rṅgod (ṅwə:-) fry it
nor-song-na (no:-) if I make a mistake
(G. and R.)
- iv. blug-shig (luɣ→) pour it, you

¹Since, in Verb Syllables (though not in Particle Syllables), palatality is invariably accompanied by lip-spreading, the letters ʃ, tʃ, dʒ, ɣ/gj, c/kj adequately symbolize both these features.

- v. hrob-pa-red (ʁɔb-) [ʔit was gravelly]
rdzogs-shag (zɔ:-) it is all used up
- vi. gas yog-ma-red-pa (ʃɔ:-) there would not be any,
would there
- vii. snag-tsha dbur-gyi-'dug he mixes ink
(ʔu:gi-)
- viii. a-mchog 'on-gyi-'dug he is deaf
(ʂŋgi-)
- 'o-na (ɔ-) well then

2. Nominalizing, and Past, Particles ba/pa/ga/nga/ra

In w Pieces that are also zs (21213122) the
Nominalizing Particle ba/pa/ga/nga/ra, is characterized
by:

(rounding + backness):

o: ɔ:;

These features can also characterize the Past-
Particle Syllable ba/pa/ga/nga/ra, but only when the Verb
is dgo/dgos, 'gro (Auxiliary), or yod (Verb Complement),
e.g.

gdan-'dren zhus [sic; zhu-ba] (ʃɔ:) he invited him
gnang

bzo-ba (ʂɔ:) gnang-gi-yin-pa 'dra he will probably produce
yod-pa-yin-pa-no (ʃɔ:-) would there be

dgos-yod [sic; dgo-ba-yod] (ʁwɔ:ɣɔ) I need

3. Verbal Particles gi/gvi/kvi and yod

(both) rounding

ʁ ɣ ɣ

(gi/gvi/kvi) (frontness + closeness

ɣ;

e.g.

<u>ga-re</u> <u>gsungs-kyi-'dug-ga</u> (<u>suŋg̃y-</u>)	what does he say
<u>mchog-gi-red-pa</u> (<u>tʃho:ḡy-</u>)	must we not
<u>dgos-kyi-yod</u> (<u>ḡwuḡyʷə:</u>)	we need
<u>zhabs-phyi zhu-gi-yod</u> (<u>ʃuḡyʷə:</u>)	I serve ¹

4. The Particles yod, yong, byung, rgyu, myong/nyung
initial rounding: ʷ ɔ̃ ḡy ɳ;

e.g.

<u>tsha-ra</u> <u>gnang 'gro'i-yod-pa-no</u> (<u>drɔ:ʷə:-</u>)	he is about to finish
<u>bka'-mol zhu-rgyu</u> (<u>ʃuḡyʷu</u>)	something to say
<u>'byor-byung</u> (<u>dʒɔ:dʒɳ</u>)	I received

5. Negative Particle ma/mi

a. non-palatal-initial Verb (Palatalization, 2121324)

(rounding + backness + half-openness) mɔ

b. palatal-initial Verb

(non-rounding + {frontness + openness/half-openness): ma mɛ
(centrality)(ft): mɛ

e.g.

a. <u>ma-dgos</u> (<u>mɔḡwɔ:</u>)	not needed
-------------------------------------	------------

¹ See also p. 537 for the pronunciation ḡi in a careful style of utterance.

b. 'don-pa'i lugs-srol mi-yong it is not the custom
(mcj5:) to mine for them (G,
and R.)

khungs dag-[po] ma-byung-shes since the basis of
(mad3ũ:-) it was not clear

yag-po ma-byung (mad3ũ) it was no good.

(for ma/me versus mc see 2121314)

The phonetic forms -o:/-o:, ǰy, yø:, yɔŋ/y5:,
ǰ3uŋ/ǰ3ũ:, ǰyu, and ǰuŋ/ǰũ: are the w-Piece forms of
ba/pa/ga/nga/ra (Nominalizing, and the Past Particle
ba/pa/ga/nga/ra when the Verb is represented by agos/dgo,
'gro, or yod), gi/gyi/kyi, yod, yong, byung, rgvu, and
myong/nyung respectively. Verbs that can be
exemplified in the w Labialization Piece are classified
prosodically as w-Piece, e.g. gsung, zhu/zhus, yod, 'gro.¹

212132113. e

The exponents of e are also drawn from (1) the
Verb Syllable, (2) the Nominalizing-Particle Syllable
pa/ba/ga/nga/ra in the zs Piece (2121312), (3) as second
Syllable, with or without the Particle yod as third
Syllable, the Particle Syllable gi/gyi/kyi, (4) the

¹ The letters y and o of the Tibetan orthography, in the
Verb Syllable, regularly indicate the mono-, di-, and
tri-syllabic w Piece.

Particle Syllables yod, yong, rgyu, byung, and myong/nyung.

For the same reason as was given in 212132111, all the Piece-initial features of the e Piece have been listed, at (1), for comparison with those of the y and the w Piece. Certain of these e features, those which do not characterize the y Piece, have already been stated in 212132112 as non-y criteria: velarity (**k g ŋ**), (dentality + nasality) (**n**), vowel (**ɤ ʌ**), glottality (**ʔ**); two further features, labio-velarity (**w**), and laterality + voicelessness) (**l̥**), are confined to the e Piece, and therefore serve as e criteria.

1. Verb Syllable

The exponents of e that are drawn from the Verb Syllable differ according to type of Quality Piece (z, g, ŋ, d, n, b, m, r; 2121311), to type of Quantity Piece (s, l; 2121312) for z-Piece examples, and to grammatical function (Imperative, non-Imperative). Three separate statements of exponency have therefore to be made according as the e Verb is exemplified in (a) the zs Piece, the g, ŋ, b, m, or r Piece, but excluding all but a very few Imperative types of Piece (Imperative Pieces in which the Verb Syllable is not characterized by rounding, e.g. **nã**: gnang grant, are included); (b) the

z1, d, n, or r Piece, again excluding all but a very few Imperative types of Piece (Imperative Pieces in which the Verb Syllable is not characterized by rounding, e.g. ga-le thas-a (**thc:-**) 'gently go' (Bell), are included); (c) all Imperative types of Piece except those few included in (a) and (b), i.e. all Imperative types of Piece in which the Verb Syllable is characterized by rounding (the r Rounding Piece; 2121323).

The types of Piece listed at (a) and (b) are complementary except for the r Piece, which appears in both; but in fact the type of r Piece considered under (a) is not the same as that considered under (b): a further two-term prosodic system, Fronting (2121322), is established for the er Piece, one term of which, the f (from fronted) is dealt with under (a), and the other, the f, under (b).

a. zs, g, ŋ, b, m, rf (mostly non-Imperative)

i. openness:

a a: ɤ:

ii. (backness + spreading):

ɤ ʌ ʌ: ɤ:

iii. initial rounding (lahovelocity):

w¹

iv. apart from (iii), initial non-rounding, e.g. **g ŋ dʒ**

¹Possibly a Reading-Style feature.

- v. initial (plosion + labiality/
dentality/palatality
or prevelarity/velarity) **p b t d c/kj ʃ/gj k g**
- vi. initial (nasality + labiality/
dentality/palatality/
velarity): **m n ɲ ŋ**
- vii. initial labiovelarity **w**
- viii. initial glottality: **ʔ**
- ix. initial vowel: **a a: ʌ: ɔ**
- x. initial affrication: **tʃ dʒ tr dr ts**
- xi. initial friction **s ʃ r z**
- xii. initial palatal semi-vowel **j**
- xiii. initial laterality **l ɭ**

e.g.

- | | |
|---|-------------------------------------|
| i. <u>ma rnyams-pa</u> (ɲam-) | not to deteriorate |
| <u>rgyab</u> (ja:) <u>ma shes-na</u> | if they do not know
how to speak |
| ii. <u>bod-yig tog-rtse slab</u> (lɤp) | I taught a little
Tibetan |
| <u>phyag-las gnang-mus</u> (nʌ:-) <u>red</u> | he is busy working |
| iii. <u>dbang-gi-'dug</u> (wʌŋgi-) | he is influential |
| iv. <u>dga'-yong</u> (gaʃʒ) | one had better |
| <u>btsas-ma rnga-gi-'dug</u> (ŋʌgi-) | he reaps the harvest |
| v. <u>khebs-na</u> (khɤm-) | if it spreads |
| <u>rkang-pa rkyangs-pa-red</u> (caŋ-) | he stretched out his
foot |

- vi. btsas-ma rnga-gi-'dug (ŋaŋi-) he reaps the harvest
myang-song (ŋa:-) he tasted
phyag-las gnang-mus (na:-) red he is busy working
- vii. see (iii)
- viii. char-pa dbabs-pa-red (ʔxb-) the rain [pattered?]
- ix. ['ar-gyi-'dug] (ʌ:gi-) it is snapping
'ab-kyi-'dug (xbgi-) it barks
- x. ga-bar bzhugs-gdan 'jag-gi-
dug-ga (dʒʌ:gi-) where are you staying
ma drag-na (tra:-) if it does not heal
(G. and R.)
phyag-las gnang tshar-ras
(tshar-) did you finish working
- xi. rag-byung-ngas (ra:dʒuŋ-) did you get
bzhag-pa-red (ʃa:-) he put
za (sa) 'gro-yod I am about to eat
- xii. yag-gi-red (ʃʌ:ge-) it will be a good thing
to
- xiii. var lang-gi-'dug (lʌŋgi-) he is getting up
skra lha-gi-'dug (lʌgi-) he plaits
- b. z1, d, n rf (mostly non-Imperative)
- i. (spreading + frontness + half-
openness): e e: E:
- ii. (" + frontness + half-
closeness):
- (c Closure Piece only, 212133): e:

iii. initial spreading, e.g.

c/kj n n

iv. " (plosion + labiality/
dentality/palatality
or prevelarity, but
not velarity): p b t d c/kj ɟ/ɟʃ

v. " (nasality + labiality/
dentality/palatality
but not velarity) m n ɲ

vi. as for (a), (x)-(xiii): tʃ dʒ tr dr ts s ʃ r z ʃ l l

e.g.

- | | |
|---|--|
| i. <u>bstan-roḡ</u> (t̃ɛ:-) <u>ḡnang</u> | please show |
| <u>bshad</u> (ʃɛ:) <u>shes-kyi-yod-ma-red</u> | I do not think they
know how to speak |
| <u>bstan-rgyu</u> (tɛŋɟu) <u>byung</u> | it was to be shown |
| ii. <u>ga-tshod rtse thad-kyi-yod-na</u>
(the:ge-) | how long is it
since - - - |
| iii. <u>bsdad-kyi-yin-'gro</u> (ge:ge-) | he will probably stay
(Bell) |
| <u>mjal</u> (dʒɛ:) <u>mchog-ga</u> | I must meet you |
| iv. <u>dmag rgyal-ba-red</u> (ɟɛr-) | he won the war |
| <u>ga-bar thad-ka</u> (thɛ:-) | where are you going |
| v. <u>ḡnan-gyi-'dug</u> (nɛŋɟi-) | he presses |
| <u>btsas-ma rŋas-pa-red</u> (pɛ:-) | he reaped the harvest |
| <u>nga bod-pa min</u> (mɛ:-) | I am not a Tibetan |
| vi. <u>sprad-kyi-yin</u> (tre:ge-) | I will give |
| <u>mjal-ba-red</u> (dʒɛr-) | he met |
| <u>byas-bzhin</u> (ʃhe:-) | then |

<u>ral-shag</u> (re:-)	it is torn
<u>bsad-song</u> (se:-)	he killed it
<u>lus-nas</u> (le:-) <u>mi-'dug</u>	- - - has been left behind (G. and R.)
<u>lhas-pa-red</u> (le:-) _o	he plaited

Of the initial features given at (a) the following cannot combine with the vowels **e**, **ε:-**, **ε:**, **e::**:

- i. velarity: k g ŋ
 - ii. glottality: ʔ
 - iii. vowel: a a: ʌ: ɤ
 - iv. labiovelarity w
- c. z, g, ŋ, d, n, (b), m, r (Imperative only)

The majority of e Verbs, regardless of Quality classification (except that there is only one b-Piece example), have rounding as a feature of their Imperative-Clause forms. In order to deal with this alternation of feature, rounding in most e-Verb Imperatives but non-rounding in all e-Verb non-Imperatives,¹ a further prosodic system is established, the two-term Rounding system (r, \bar{r} ; 2121323). In sections (a) and (b) above the e exponential features have been drawn from

¹ Except the suspect form dbang, with initial labiovelarity (**w**) (p. 550, n. 1).

\bar{r} forms; in (c) they are drawn from r forms

(Imperative):¹

- | | |
|--|---|
| i. (rounding + backness + half-openness/openness): | o o: ɔ: |
| ii. (rounding + frontness + half-closeness): | ø: ɘ: |
| iii. initial rounding, e.g. | s d ŋ |
| iv. " (spreading + palatality), e.g. | ʃ c ɲ |
| v. " (plosion + labiality/dentality/
palatality or prevelarity/
velarity): | p b t d c/kj
ʃ/gj k ɣ |
| vi. " (nasality + palatality/velarity): | ɲ ŋ |
| vii. as for (a), (x)-(xiii): | tʃ dʒ tr ts s ʃ z ʒ l |
| e.g. | |
| i. <u>'bras</u> <u>'di zo</u> (so:) | 'eat this rice' |
| <u>'di</u> <u>thag-pas</u> <u>sdoms</u> (dɔm) | 'Tie this with string' |
| ii. <u>mig yag-po</u> <u>ltos</u> (tø:) | 'have a good look' |
| <u>nyon-shig</u> (ɲʒ:-) | 'make sure you listen' |
| iii. <u>lcags-thab-la</u> <u>me thong</u> (tʒ:) | 'light the stove'
(G. and R.) |
| <u>mi</u> <u>'di-la</u> <u>sgo-nga</u> <u>gsum</u> <u>sprod</u>
(trø:) | 'give this man three
eggs' (G. and R.) |

¹It is unfortunate that 'r' should have to be used for a term of the Rounding system, as opposed to \bar{r} , as well as for a term of the Quality system, as opposed to z, g, ŋ, d, n, b, and m; but where it is not clear from the context which 'r' is intended, the system will be specified.

- iv. kha skyol (cə:) 'kiss it'
 nyon (nɛ:) 'listen'
 v. dgod (ḡwə:) 'laugh'
 'dir sgug sdog (dɛ:) 'wait here'
 vi. rngos-shig (ṅwə:-) 'reap it'
 nyol-shig (nɛ:-) 'lie down'
 vii. chogs-shig (tʃɔ:-) 'split it'
 krol-shig (trɛ:-) 'explain it'
 tshogs-shig (tsɔ:-) 'filter it'
 sog-shig (sɔ:-) 'heap it up'
 shod-shig (ʃɛ:-) 'explain it'
 'dzegs-shig (nzɔ:-) 'climb it'¹
 gyor-shig (jɔ:-) 'borrow it'
 longs-shig (lɔ:-) 'lift it up'

2. Nominalizing Particle ba/pa/ga/nga/ra (zs Piece)
 (openness + backness): a:

e.g.

mig lta-ba (ta:) 'looking at'

3. Verbal Particles gi/gyi/kyi and yod

a. gi/gyi/kyi

1. non-rounding:

9 8

¹The initial nasality is a Reading-Style feature.

ii. (n Initial Piece, 21213131) (frontness + spreading
+ closeness): i

(z " " , 21213132) (centrality + spreading
+ half-closeness): e

b. yod

initial spreading: j

e.g.

- phyag-las gnang-gi-'dug (nʌŋgi-) 'he is working'
- homs rang-la bzhugs-gdan
jag-gi-'dug-ka (dʒʌ:gi-) 'or do they live at the
Homes itself'
- ga-tshad thad-kyi-yod-na
(the:gəjə:-) 'how long is it
since - - -'
- phyag-las su'i tsa-la gnang-gi-yod-na
(nʌŋgəjə:-) 'whose place do you
work at'
- bcar-gyi-yin (tʃʌ:gə-) 'I will call on'

4. the Particles yod, yong, byung, rgyu, myong/nyung

initial spreading: j dʒ gʃ ɲ

e.g.

- bstan-rgyu (tɕŋgju) 'to be shown'
- 'da'i chibs-bsgyur gnang-byung-ngas
(nā:dʒuŋ-) 'did he come here'
- rta'i-sga yag-po rgyab-yod-pas
(gʃɤbjə-) 'have you fastened the
saddle well'

The phonetic forms -a:, ge/gi, jə(:), jɕŋ/jʃ,
dʒuŋ/dʒū, gju, and ɲuŋ/ɲū: are the e-Piece forms of
ba/pa/ga/nga/ra (Nominalizing), gi/gyi/kyi, yod, yong,
byung, rgyu, and myong/nyung respectively, all of which

are shared with the y Piece except **a:**, and **ge**.¹ Verbs that can be exemplified in the e Piece are classified prosodically as e-Piece, e.g. rnyams, rnga/rngas/rngos, lang/longs.²

There are two Verbs that cannot be classified as exclusively y or e; for each has both y and e forms:

(i), byed/byas, 'do'; (ii), zer/ser/se, 'say'; e.g.

- | | | | |
|-----|---|--|---|
| i. | { | y { <u>byed-kyi-'dug</u> (tʃhi gi-) | 'he does'; |
| | | y { <u>byed-dgos-[yod]</u> (tʃh e-) | 'I have got to do it' |
| | | e <u>byas-'dug</u> (tʃh e:-) | 'it has been done' |
| ii. | { | y { <u>zer-gyi-'dug</u> (si gi-) | 'they say' |
| | | y { <u>zer-na</u> (s e-) | 'supposing that' |
| | | y { <u>ga-re zer-ra-yin-na</u> (s er-) | 'what is it called,
I wonder' |
| | | e <u>de-pag phar tshur chu-spre ze</u> (s a) | 'all over these
parts they say
"chuti"' |

Since these two Verbs are exemplified in both y and e Piece, they are classified as y/e Verbs.

One of the purposes that the Labiality system serves is that of making it possible to associate the z examples

¹A very few examples of **ge** have been observed in the y Piece.

²The e Piece, and e-Piece Verbs, are regularly symbolized in Tibetan orthography by a in the Verb Syllable, except for the majority of Imperative forms (r-Piece forms), in which o is used.

rnga-gi-dug ($\eta^{\wedge}gi-$), 'he is reaping', and rngos ($\eta^{\omega}o:$) 'reap', with rngas-pa-red ($\eta^{\epsilon}:-$), 'he reaped', in such a way that the velarity (η) of the former two examples, one of which is sP (Quantity, 2121312), and the other rP (Rounding, 2121323), together with the palatality (η) of the latter, which is lP (2121312), can both be regarded as exponents of the same C term (η) under different and complementary prosodic conditions ($\epsilon z s$, $\epsilon z r$, $\epsilon z l$). In s Pieces such as $\eta^{\wedge}gi-$ and $\eta^{\wedge}a$ velar nasality precedes \wedge and a (212132113, 1, a, i-ii, vi), in a (1)r Piece such as $\eta^{\omega}o:$ velar nasality precedes $o:$ (1, c, ii, vi); but in a $l\bar{r}$ Piece such as $\eta^{\epsilon}:-$ the vowel can be preceded by (nasality + dentality or palatality) ($\eta \eta$) but not (nasality + velarity) (η).¹ η in the $l\epsilon$ Piece, in association with $\epsilon:$, which cannot be preceded by velarity, alternates with η in the $s\epsilon$ Piece, in association with a/\wedge , and in the r Piece, in association with $o:$; thus the feature dorsality is common to el , es , and er Pieces, but the localization alternates between the hard palate, for the $l\epsilon$ Piece, and the soft palate for the ϵs and the ϵr e.g.

¹For some LT-speakers, including P, velar nasality can be initial in a ϵ Piece in which the vowel is $\epsilon:$ (ϵd , ϵn , $\epsilon z l$) e.g. rngas-pa-red ($\eta^{\epsilon}:-$); cf. also the Noun + Particle Word $\eta^{\epsilon}l\epsilon$ (sngon-la) (R. $\eta^{\epsilon}l\epsilon$), $\eta^{\epsilon}:$ (nga'i) (R. $\eta^{\epsilon}:$).

əʂ	<u>btsas-ma</u> <u>rnga-shig</u> (ŋa-) ¹	reap the harvest
əʂ	" <u>rnga-gi-'dug</u> (ŋa-)	he is reaping the harvest
ər	" <u>rngos-shig</u> (ŋə:-)	reap the harvest
əl	" <u>rngas-pa-red</u> (pə:-)	he reaped the harvest

The features (rounding + backness + half-openness/openness) (ɔ ɔ: ɔ:) and (rounding + frontness + half-closeness) (ø: ʊ:) that have been stated as part of the exponency of ə, and that apply only to the Imperative-Clause ə Piece (l, c, i-ii), overlap certain of the features stated for w (rounding + frontness/backness + closeness/half-closeness/half-openness (a, i; u u: ũ: o: ɔ ɔ: ɔ: ø ø: ʊ: y y: ŷ:)), which apply to both Imperative and non-Imperative Clauses. These overlapping features (ɔ ɔ: ɔ: ø: ʊ:) cannot therefore serve as criteria of either w or ə as far as concerns Imperative forms; indeed they can be identified, as ə exponents (l, c, i-ii) or as w exponents (a. i), only through a knowledge of the formal scatter of the Verb concerned.

A knowledge of Tibetan grammar, at least to the extent of identifying Imperative and non-Imperative forms, is therefore essential to the phonological analysis

¹Also rngos-shig (ŋə:-).

at this point. The alternation of rounding with non-rounding, or rounding in Imperative forms with non-rounding in non-Imperative forms (a majority of Verbs have rounding as a feature of their Imperative Forms), is exclusive to e Verbs: rounding of vowel is not a y feature; and non-rounding is not a w feature. eP Imperative forms are here phonologically distinguished from wP Imperative forms in spite of the fact that the vowels ɔ, ɔ:, ɔ:, ɔ: are common to both; to this end, a further prosodic system, the two-term Rounding system (2121323), is required to deal with rounding and non-rounding of vowel as features of eP Verb Syllables; no such system is needed for wP Verb Syllables, all of which have rounding as a vowel feature in Imperative and non-Imperative forms alike.

Thus, Pieces that are phonetically identical as regards labial features of the initial consonant and the vowel of the Verb Syllable may well be analysed as different phonologically, either as w or as er. This prosodic difference leads to a phonematic difference: the e Verb has no V system; the w Verb Syllable has no V system either for those w Verbs which are also z, g, ŋ, d, n, b, or m (Quality system), but two-term V systems for those which are also r: U and Y for those Verbs which are classified in terms of the Closure system

(212133) as c, and 0 and \emptyset for o Verbs. On the one hand, therefore, the appropriate features of the vowels ɔ , ɔ: , ø , and ø: can be part of the exponency of purely prosodic terms, of ə and r (Rounding), and on the other, part of the exponency of the prosodic term w, and exponents of the V terms 0 (ɔ ɔ:) and \emptyset (ø ø:) of a two-term phonematic system.

The fact that there can be V phonematic systems set up for one type of w-Piece Verb Syllable as against the impossibility of setting up a phonematic system for the əP Verb is in itself a reason for refusing to identify the əP Imperative forms that have a rounded vowel (dø: sdod 'stay', kha skyol (kjə:) kiss, tʃɔ: gcor visit, ʃɔ: bzhar shave cf. the lexically corresponding forms with non-rounded vowel dɛ: bsdad, kjɛ: bskyal, tʃa: bcar, ʃa: bzhar) from such wP-Verb Imperative forms as kø: skol boil, trø: khrol unloose, kɔ: skor go round (cf. the lexically corresponding non-Imperative forms kø: skol, trø: dkrol, kɔ: skor). These wP forms are also examples of the V terms \emptyset (skol, dkrol) and 0 (skor). The əP forms with rounded vowel, on the other hand, are not examples of 0 or \emptyset .

Thus, by means of the Rounding system the əP Imperative forms sdod (dø:) and thong (tʃɔ:) are taken

to be of the same Labialization type (e) as the non-Imperative forms bsdad (dɛ:) and btang (tɛ:), and are dissociated from wP Verbs such as tʃhɛ: mchod and tshɔ:/tsɔ: 'tshong. Except for (spreading + half-openness + frontness + long duration + non-nasality) (ɛ:), the e features at (l, b, i-ii) overlap some of the y features included in (a. i), and all the features at (a, ii-iii): e:, ɛ, ɛ:, e.g.

e:	{	y {	<u>ster-ba-red</u> (te:-)	he gave
		y {	<u>ster-gyi-'dug</u> (te:gi-)	he gives
		e	<u>ga-tshed</u> <u>thad-kyi-yod-na</u> (the:ge-)	how long is it since - - -
ɛ	{	y {	<u>phye-ba-red</u> (tʃhɛ-)	he opened
		y {	<u>len-pa-red</u> (lɛm-)	he took
		y {	<u>ster-ba-red</u> (tɛr-)	he gave
		e {	<u>bstan-pa-red</u> (tɛm-)	he showed
		e {	<u>bstan-gyi-red</u> (tɛŋ-)	he will show
ɛ:	{		<u>mjal-ba-red</u> (dʒɛr-)	he met
		y	<u>dbugs ring-po</u> 'then (thɛ:)	draw a long breath (G. and R.)
		e	<u>bstan-mo</u> <u>bstan</u> (tɛ:) ¹	put on the show

One of the differences between the y and the e examples above is that in the e examples, but not in the y examples, the vowels, e:, ɛ, and ɛ: may be preceded by a dental (tɛr-), and as a Fast-Tempo alternative to the

¹Also ston (tɛ:). The vowel ɛ is also in these wP

nasal (n), and have therefore a quite different implication from these same vowels in the y Piece. There is the further difference in the case of the examples in e:, that the y examples can also be examples of either the c (Close) or the o (Open) Closure Piece (Closure, 212133; c: ster-gyi-'dug te:gi-; o: ster-ba-red te:bə-), while the e example can only be also an example of the c Piece; thus, the vowel e: of the e example (c Piece) alternates with e: (of the o Piece); but the vowel e: of the y examples does not alternate in this way; e.g.

y e: (e)	{ c: <u>ster-gyi-'dug</u> (te:gi-)	he gives
	{ o: <u>ster-ba-red</u> (te:bə-/tɛrə-, ft)	he gave
e e:/e: (e)	{ c: <u>mjal-gyi-'dug</u> (dʒe:gi-)	he meets
	{ o: <u>mjal-ba-red</u> (dʒɛ:bə-/dʒɛrə-, ft)	he met
y e:	{ c: <u>phebs-kyi-'dug</u> (phe:gi-)	he comes
	{ o: <u>phebs-pa-red</u> (phe:bə-)	he came
e e:/e:	{ c: <u>thad-kyi-'dug</u> (the:gi-)	he goes
	{ o: <u>thad-pa-red</u> (thɛ:bə-)	he went

The vowel e appears in the rP examples in the immediately preceding paragraphs (ster, mjal) as a Fast-Tempo alternative to e: in the y Piece (te:bə-, tɛrə-), and as a Fast-Tempo alternative to e: in the e Piece (dʒɛ:bə-, dʒɛrə-). The vowel e in those nP

examples (bstan, len) which are also *e*-Piece is appropriate to either *c* Piece or *o* Piece alike (*c*: bstan-gyi-red, tɛŋgə-; *o*: bstan-pa-red, tɛmbə-); but *ɛ* in the *y* examples, of both *nP* (len) and *zP* (phye), is appropriate only to the *o* Piece, except in what is believed to be an artificially careful style, and alternates with the *c*-Piece vowel *i*; e.g.

<i>y</i> <i>i/ɛ</i>	<i>c</i> : <u>phye-gi-'dug</u> (<u>tʃhiɣi-</u>)	'he opens'
	<i>o</i> : <u>phye-ba-red</u> (<u>tʃhɛbə-</u>)	'he opened'
	<i>c</i> : <u>len-gyi-red</u> (<u>liŋgə-</u>)	'he will take'
	<i>o</i> : <u>len-pa-red</u> (<u>lɛmbə-</u>)	'he took'
<i>e</i> <i>ɛ</i>	<i>c</i> : <u>bstan-gyi-red</u> (<u>tɛŋgə-</u>)	'he will show'
	<i>o</i> : <u>bstan-pa-red</u> (<u>tɛmbə-</u>)	'he showed'.

Further, the vowels *e:* and *ɛ* of the *e*-Piece Verb commonly alternate with the vowels *ø:* and *ɶ:*, the latter two vowels being appropriate to Imperative forms, and the former two to non-Imperative forms; but for the vowels *e:* and *ɛ* of the *y* Piece there is no such alternation, e.g.

<i>y</i> <i>e:</i>	non-Imp. <u>phebs-kyi-'dug</u> (<u>phe:-</u>)	'he comes'
	Imp. <u>phebs</u> (<u>phe:</u>)	'come'
<i>e</i> <i>e:/ø:</i>	non-Imp. <u>bsdad-kyi-yin</u> (<u>də:-</u>)	'I shall stay'
	Imp. <u>bsdod</u> (<u>də:</u>)	'stay'

y e: (ɛ)	$\left\{ \begin{array}{l} \text{non-Imp.} \left\{ \begin{array}{l} \text{ster-gyi-'dug (te:-)} \\ \text{ster-ba-red (tɛr-)} \end{array} \right. \\ \text{Imp.} \quad \text{ster (te:)} \end{array} \right.$	<p>'he gives'</p> <p>'he gave'</p> <p>'give'</p>
ə e:/ɛ/ø:	$\left\{ \begin{array}{l} \text{non-Imp.} \left\{ \begin{array}{l} \text{skvel-gyi-'dug (ce:-)} \\ \text{bskal-ba-red (cɛr-)} \end{array} \right. \\ \text{Imp.} \quad \text{skvol (cø:)} \end{array} \right.$	<p>'he carries'</p> <p>'he carried'</p> <p>'carry'</p>
y ɛ/ø:	$\left\{ \begin{array}{l} \text{non-Imp.} \quad \text{phye-ba-red (tʃhɛ-)} \\ \text{Imp.} \quad \text{phye (tʃhɛ:)} \end{array} \right.$	<p>'he carried'</p> <p>'shut'</p>
y ɛ/ɛ:	$\left\{ \begin{array}{l} \text{non-Imp.} \quad \text{'then-pa-red (tʰɛ-)} \\ \text{Imp.} \quad \text{'then (thɛ:)} \end{array} \right.$	<p>'he pulled'</p> <p>'pull'</p>
ə ɛ/ɛ:	$\left\{ \begin{array}{l} \text{non-Imp.} \quad \text{nyan-pa-red (nɛm-)} \\ \text{Imp.} \quad \text{nyon (nɛ:)} \end{array} \right.$	<p>'he listened'</p> <p>'listen'.</p>

In order to deal with the alternation of rounding with non-rounding as features of the ə Piece it is necessary to set up the further prosodic system Rounding (2121323); no such system is needed for the y Piece.

Classifying a Verb as yP rather than as wP or əP foreshadows differences in phonematic statement; for yP Verb Syllables are disqualified from being characterized by e.g. initial dental nasality (n); and any C system set up for yP Verb Syllables must, as a result, differ from the C systems set up for the wP and əP Verb Syllables: in these last provision must be made for a phonematic unit with (dentality + nasality) (n) as an

exponent, e.g. (əP), gnan-pa-red (**nɛm-**), 'he pressed',
gnang-ba-red (**naŋ-**), 'he gave'; (wP), snom-song
(**num-**), 'he smelt'. Thus, classifying e.g. ster as a
yP Verb renders it prosodically non-comparable with **n**-initial
Verbs. Although both yP and əP Verb Syllables can be
characterized by (frontness + spreading + half-closeness)
(**ɛ:**), e.g. (yP), ster-gyi-yin (**tɛ:ge-**), 'I shall give';
(əP), bsdad-kyi-yin (**dɛ:ge-**), 'I shall stay', it is only
the əP that can alternatively be characterized by
(frontness + spreading + half-openness) (**ɛ:**), e.g.
bsdad-pa-yin (**dɛ:bə-**), 'I stayed', and is therefore
prosodically comparable with gnan-gyi-yin (**nɛŋge-**), 'I
shall press', gnas-kyi-yin (**nɛ:ge-**), 'I shall dwell', and
gnas-pa-yin (**nɛ:bə-**), 'I dwelt'.¹

21213212. Particle

The purpose of the Labialization system is also to
deal with syntagmatically related consonantal and vocalic
features of Particle Syllables. For example, where
rounding is a feature of the initial consonant, it must

¹These last two examples, though attested in the thesis
material, probably have no better claim to be accepted as
contemporary LT than 'dwell' has of being accepted as
contemporary spoken English (cf. LT bzhugs, bsdad, 'live',
'live at', 'stay').

also be a feature of the vowel (this is not true of the converse); where lip-spreading is a feature of the vowel, non-rounding is a feature of the initial consonant (here, again, the converse is not true); and where a neutrally open lip position is a feature of the vowel, non-rounding is a feature of the consonant.

The above features have something in common with features stated as exponents of the terms *y*, *w*, and *e* for the Verb and for the Verb + Particle Piece (21213211), though the latter applies to di- and tri-syllabic Verb + Particle Pieces as well as to monosyllabic (Verb) Pieces, and therefore also accounts for some of the features of certain of the Particle Syllables considered here (pa/ba/ga/nga/ra, byung, rgyu, yong, yod, myong/nyung).

The exponents of the three terms *y*, *w*, and *e* in the monosyllabic-Particle Piece are (when stated within the framework of the Quality Piece):

y

i. (spreading + frontness +

closeness/half-closeness):

e: e i i: i:

half-openness + shortness):

ε

ii. spreading as a consonant feature, e.g.

ṣ ṇ ṡ ṣ

iii. (gi/gyi/kvi in the ə Vb. + Part. Piece)

centrality:

gə

iv. (gi/gyi/kvi in the w Vb. + Part. Piece)

rounding:

gy

w

i. rounding, as a vowel feature:

{ e e: y: ɔ ɔ: ʊ(:)
u u: ʊ(:) o:

ii. rounding, as an initial-consonant

feature:

{ dr d ɹw ɹɹ ɹ n
m l s ɹ ɹɹ r nd

iii. (spreading + palatality), as an

initial-consonant feature:

ɹɹ j ɹ ɹɹ

e

i. (frontness +

half-openness }
half-closeness¹ } + long duration):

e:¹ ɛ:

half-openness + nasality):

ɛ:

openness):

a

ii. (backness + non-rounding):

a: ɤ: ɤ ɤ

iii. centrality:

e

iv. non-rounding, as an initial-consonant

feature, e.g.

m t ɹ, etc.

¹Only in the c Closure Piece (212133).

e.g.

- y: i. 'grig-gi-red (-re:) that will be all right
bzo-rtsis (-gzi:) ra-po yod I am sort of about to make
- ii. ka-lon sbug-la yong-nas (-ne) having come to Kalimpong
par-khang yod-pas-se (-s) have you a printing works
- iii. see 212132113, 3, a, ii
- iv. see 212132112, 3
- w: i. bzhugs-gdan 'jag-mus (-my:) staying
mang-po bsdad-long (-ls:) we cannot halt for long (G. and R.)
- ii. zhu-rrog (-ro:) gnang anything further to be said
las-ka byed-dgos-yod (-gwo-
-ye) I have to work
- iii. ga-tshad thad-kyi-yod-na
 (-je:-) how long is it since
bsgrigs-pa gnang-rgyu (-gju) how to set
- e: i. rgyal-rtse-la phebs-pas (-be:) did you come to Gyantse
phyag-las gnang-nyan (-pe:) someone who works
- ii. 'di byed-thabs (-gyp) yod-ba-
ma-red there is no help for it (Bell)
chang 'di yag-pa a-yin-na (ʔa-) I doubt whether this beer is all right
btang-yag (-ja:) for sending
- iii. 'byor-mad-pa-no (-be-) have you not received
klog thub-pa (-be) byas having made it possible for them to read

iv. khang-pa 'di skyid-po 'dug-gas (-ge:) is this house pretty

gas yog-ma-red (-ma-) dang (tã:) are there not any

In spite of a general similarity of the exponents of the terms y, w, and ə of the Particle Labialization Piece to those of these terms in the Verb, or the Verb + Particle, Labialization Piece (21213211), ^{there} are considerable differences of detail. Thus, dental nasality (n) and velar nasality/plosion (g ŋ) cannot be initial in a y-Piece Verb, preceding i, i:, ɪ:, e:, or ɛ, but can be initial in a y-Piece Particle e.g. nas/ni (nɛ/ni), gi/gvi/kyi (gɪ), preceding ɛ or i; and centrality (ə) and syllabicity (s ŋ ɟ/ɣ), which are features of the ə and the y Labialization Piece respectively in Particle Syllables, do not characterize the Verb Syllable at all.

The z-Piece Particle Syllables gi/gvi/kyi (gɪ/gə/gɣ/ɟ) and ma/mi (ma/mi/mɛ/mɔ) are both characterized by differing labial features in accordance with differences in Junction (212132, 2121311311), and in type of Initial Piece (21213131, 11) and Labialization Piece (212132111/2/3,3). This relatively high degree of diversity as compared with other z-Piece Particles e.g. shig, nas/ni, a, ba/pa/ga/nga/ra (Past) is due to their being included in a wider variety of prosodic types of Piece.

gi/gvi/kvi, ma/mi, and every Verbal and Nominalizing Particle can be given a prosodic classification in terms of the Labialization system, as being y-Piece, w-Piece, or ə-Piece.

y: shig, bzhin, rtsis, min/man, vin, ze/se, red, de'i/da'i/te/'das, byas, nas/ni.

w: dus (Verbal, Nominalizing), mus, rgyu, 'dug, byung, nyung/myong, dgos/dgo/go, do, gro/'gro, no, long, dwogs/dog/rdog, yod, yong, song, rog;

ə: shag, kag/ka/ga (Final), tsang, yang, dang (Interrogative, Imperative), bstang, yag, thabs; ma/mi, ka/ga (Future Interrogative), 'dra, a (Imperative Dubitative), min/man, med/mad, pas/gas/ngas/res, ba/pa/ga/nga/ra (Nominalizing), pa/ga/nga (Interrogative, Exclamatory), nyan/mkhan sa, na, ta.

The w Piece is represented in Tibetan orthography, as far as Particles are concerned, by the letters u and o, the y Piece by i, e, e'i, a'i, and by a immediately followed by s or n, (nas/ni, byas), and the ə by a (but by i for ma/mi in the n Initial Piece, e.g. mi-'dug).

2121322. Fronting (f f̄)

The analysis of certain Verb Words and Verb + Particle Words in terms of the eight-term Quality system (21213111) and the Labialization system (2121321) results in the

initial prevelarity/palatility (**kj gj ɲ**) as a feature, e.g. **kje:-**, **kjɛr-**, **kjɛ:-** in (i) above, while the remaining ɛr-Verb Syllables, which have as features openness (**a a:**), backness (**ʌ: ɔ:**), or (frontness + rounding) (**ø:**), are not disqualified, (e exponents 1, a and c, v-vi), e.g. dkar-gyi-'dug (**kʌ:-**), 'it is white', dkar-ba-red (**ka:-/kar-**), 'it was white', dgod (**gø:**), 'laugh'. Since the difference between the two types of example concerns not only the vowel but the initial consonant as well, a prosodic statement (the Fronting system), distinguishing the one type of Syllable from the other, is appropriate.

The Fronting system comprises the two terms f (front) and \bar{f} (non-front), and applies to ^amonosyllabic Piece, the ɛr-Verb Syllable. The exponents of these terms are:

f: a.(frontness + spreading):

e: ɛ: ɛ

b.(" + rounding) (Imperative only):

ø:

c. where the vowel is one of those given at (a)

(**ø: ɛ: ɛ**), i.e. in the \bar{f} Piece (Rounding, 2121323),

i. initial (plosion + dentality/palatility or prevelarity):

t c/kj ɟ/gj

ii. initial (nasality + palatility):

ɲ¹

¹No examples of labiality (**p b m**) have been observed in the material.

d. where the vowel is that given at (b), (ø:),

i.e. in the r Piece (Rounding, 2121323),

i. initial (plosion + palatality (or prevelarity)/
velarity):

c/kj ʃ/gj ɟ¹

ii. initial (nasality + palatality):

ɲ.

f: a. (frontness + openness):

a

b. (backness + { 1. non-rounding
ii. rounding) (Imperative only):

ʌ: a:

o:

c. initial (plosion + labiality/dentality/
velarity):

p b t k²

d. initial (nasality + labiality/palatality):

m ɲ;³

e.g.

f: a. sku-phyag gsum 'tshal-ra (ba)
(tsher-) gnang-nas

he must make three
obeisances (Bell);

kha bskyal-gyi-'dug (ce:-)

he is kissing

bgad-mo bgad-pa-red (gje:-)

he laughed;

b. mjal-shig (dʒø:-)

meet him

c. 1. thugs dal-ba'i (ther-) sgang-la

when you have
leisure (G. and R.)

dmag rgyal-ba-red (jer-)

he won the war

¹There are, as it happens, no examples of dentality (t).

²No examples of palatality (or prevelarity) (c ʃ kj ɟ) have been observed in the thesis material.

³No examples of dentality (n) or velarity (ɲ) have been observed in the thesis material.

ii. <u>gnyid</u> <u>nyal-ba-red</u> (<u>ne:-</u>)	he slept
d. i. <u>dgod</u> (<u>ge:</u>)	laugh
<u>kha</u> <u>skyol</u> (<u>ce:</u>)	kiss it
ii. <u>snyol</u> (<u>ne:</u>)	lay it down
F: a. <u>skyon</u> <u>tsha-ra-yin-na</u> (<u>tshar-</u>)	has he finished printing, or - -
<u>dngul</u> <u>g'yar-ba-yin</u> (<u>ja:-</u>)	I borrowed money
b. i. <u>sang-nyin</u> <u>bcar-gyi-yin</u> (<u>tʃʌ:-</u>)	I will call tomorrow
ii. <u>gcor</u> (<u>tʃo:</u>)	call on him
c. <u>dkar-ba-red</u> (<u>ka:-</u>)	it was white
<u>tog-tsa</u> <u>spar-rog</u> (<u>pa:-</u>) <u>gnang</u>	please give me a little more than that (Bell)
d. <u>dmar-gyi-'dug</u> (<u>ma:-</u>)	it is reddish
<u>nyar-ba</u> (<u>par-</u>) <u>gnang-ba</u>	to take care of (Bell).

Not all the initial consonantal features of the **f** and of the **f̄** Piece appear among the exponents given above; for such features as affrication (**ts tr dʒ tʃ**), friction (**s ʃ**), and (semi-vowel + palatality) (**j**), enjoy no special relationship, such as that of velarity, with the vocalic features of the **er-Verb Syllable**.

The vowel-initial example 'ar-gyi-'dug (**ʌ:-**), 'it snaps', if it is indeed a valid example of the **r** Quality Piece (the available examples are consistent with either the **r** or the **g**), would also be a source of a **f̄** exponent

(and criterion); for in the f Piece a vowel cannot be initial.

er Verbs that are exemplified exclusively in the f or the \bar{f} Piece are termed respectively f Verbs (erf) and \bar{f} Verbs (er \bar{f}).¹

2121323. Rounding (r, \bar{r})²

An alternation of lip-rounding with non-rounding as both vowel and consonant features has already been referred to as characteristic of the ə Piece as opposed to the y or the w (p. 554). This alternation applies to ez, eg, ep, ed, en, em, and er Verbs (both erf and er \bar{f}), but hardly to the eb, which provides only one example of

¹ f is regularly represented in Tibetan orthography by -l, and \bar{f} by -r, e.g. (i), f: 'tshal, bskyal/skyol, snyol, with bgad/dgod, in -d, as an exception; (ii) \bar{f} : g \bar{o} var/g \bar{o} vor, bcar/gcor.

² The r of the Rounding system (r, \bar{r}) is unlikely to be confused with the r of the Quality system (z, g, ŋ, d, n, b, m, r; 21213111): where the context does not adequately indicate which of the two is being referred to, the system of which it is a term can easily be named. In formulae the Quality-system symbols follow all others (except, for r Verbs, those of the Fronting system, (f, \bar{f})).

this alternation, the non-rounded vowel γ , e.g. btab-kyi-'dug ($\text{t}\gamma\text{b-}$), 'he sows' (Bell), alternating with the rounded vowel ν of thob ($\text{th}\nu\text{p}$), 'sow' (Imperative), for which R. was also willing to accept the non-rounded form $\text{t}\gamma\text{p}$.

The Rounding system is needed to account for the Imperative forms of the majority of ə Verbs, which are characterized by rounding. It comprises the two terms r and $\bar{\text{r}}$, and is applicable to monosyllabic Pieces comprising only the Verb Syllable. The exponents of these two terms are:

r :

- i. rounding of vowel: $\text{ɔ} \text{ ɔ:} \text{ ɔ̃:} \text{ ɐ:} \text{ ɐ̃:}$
- ii. initial (rounding + non-palatalty): $\text{s} \text{ t} \text{ ʃw}$, etc.¹
- iii. " (spreading + palatalty): $\text{ʃj/ɟ} \text{ kj/c} \text{ ʃ} \text{ tʃ} \text{ dʒ}$

$\bar{\text{r}}$:

- i. non-rounding of vowel: $\text{x} \text{ ɐ:} \text{ ɛ} \text{ ɛ:} \text{ ɛ̃:} \text{ a} \text{ a:} \text{ ǣ:} \text{ ʌ} \text{ ʌ:} \text{ ǻ:}$ ²

¹Where it is velarity that is initial in a rP Verb Syllable, the lip-rounding stated at (ii) is so strong that it has been regularly transcribed as a sequence of velar plosive/nasal and labiovelar semi-vowel, e.g. rngos-shig (ŋwə:-), 'you mow it', skoms-shig (kʷəm-), 'you dry it' (also, and perhaps more usually, kam-).

²If it were not for the suspect form $\text{th}\nu\text{p}$ (thob) referred to in the last paragraph but one, the Rounding system could have been treated as inapplicable to əb -Verb Syllables; and the vowel γ , which is confined to this type of Syllable, would not then have appeared in the exponents given here.

ii. initial (spreading +

non-labiovelarity): $\dot{s} \dot{t} \dot{g}j/\dot{c} \dot{k}j/\dot{c}$, etc.

iii. " (rounding + labiovelarity):

w

e.g.

r:

i. zo-shig ($\underline{so-}$)

you eat it

'dir sgug sdod ($\underline{do:}$)

stay here and wait

ii. lcags-thab-la me thong ($\underline{t\dot{s}:}$)¹

light the stove (G. and R.)

mig yag-po ltos ($\underline{t\dot{o}:}$)

have a good look

iii. lcog-rtse'i sgang-la zhog ($\underline{fo:}$)

put (the sugar) on the
table (G. and R.)

nyon ($\underline{n\tilde{o}:}$)

listen

\bar{r} :

i. za-gi-man ($\underline{sa-}$)

I shall not eat

za-ba-red ($\underline{sa-}$)

they are in the habit
of eating

ii. bzas-pa-red ($\underline{se:-}$)

they ate

lan bskyal-gyi-'dug ($\underline{kj\dot{o}:-}$)

he is conveying a reply

sgo rgyab ($\underline{g\dot{j}x\dot{p}}$)

shut the door (G. and R.)

iii. dbang-gi-'dug ($\underline{wax\dot{p}-}$)

he is influential.

All the r-Piece examples are equally examples of the Imperative (Affirmative) Clause; the \bar{r} -Piece examples are also either Negative-Imperative or non-Imperative, the

¹Also, but less commonly, $\underline{th\dot{s}:}$.

latter being in the majority.

The Rounding system provides a means of associating with each other the following rounded and non-rounded vowels, together with rounding and non-rounding as initial-consonant features, as complementary prosodically distributed exponents of the same Labialization term (ə) and of the same C- term; the examples below are arranged according to the classification of the Verb in question in terms of Quality (21213111):

z: i. \bar{r} ; a/ɛ:/ʌ; r: ɔ/ɔ:; 11. \bar{r} : a/ɛ:/ʌ; r: ɔ:

- | | |
|--|---------------------------------|
| i. <u>za-ba-red</u> (sa-) | they are in the habit of eating |
| <u>sha ma za</u> (sa) | do not eat meat (Bell) |
| <u>bzas-pa-red</u> (ʂɛ:-) | they ate |
| <u>zo-shig</u> (sɔ-) | mind you eat it |
| <u>zo</u> (sɔ:) | eat it. |
| ii. <u>mig lta-ga</u> (ta-) | in order to look at |
| <u>mig ma lta</u> (ta) | do not look |
| <u>ltad-mo bltas-pa-red</u> (tɛ:-) | he saw the show |
| <u>mig ltos</u> (tɔ:) | look and see. |
| g: \bar{r} : a:/ʌ:; r: ɔ: | |
| <u>'dir ma zhag</u> (ʃa:) | do not put it here |
| <u>zhag-gi-yin</u> (ʃʌ:-) | I shall put |
| <u>lcog-rtse'i sgang-la zhog</u> (ʃɔ:) | put (the sugar) on the table |

ŋ: \bar{r} : a/ʌ/ɤ:/ɤ:; r: ɤ:

ngas yi-ge cig btang-ba-yin (tɛŋ-) I sent a letter
btang-gi-'dug (tɛŋ-) he sends
nga-la yi-ge cig btang-byung (tɛ:-) he sent me a letter
btang-mus (tɛ:-) in the act of sending
nga'i g.yog-go (po) skad gtong (tɛ:-)¹ call my servant (Bell)

d: \bar{r} : ɛ:/e:; r: ø:

bsdad-pa-yin (dɛ:-) I stayed
bsdad-kyi-yin (dɛ:-) I shall stay
'dir sgug sdod (dɛ:-) stay here and wait

n: \bar{r} : ɛ/ɛ:; r: ɤ:

nyan-gyi-ma-red (nɛŋ-) he does not heed (Bell)
nyan-song (nɛ:-) he listened
nyon-shig (nɛ:-) see you listen

b: \bar{r} : ɤ; r: ɖ (but see p. 578)

gsol-ba btab-pa (tɤb-) to pray
 " thob-shig (tɤp-) mind you pray; also
 " btab-shig (tɤp-) " " "

m: \bar{r} : a/ʌ; r: ɖ

thag-pas bsdams-shag (dam-) it is tied with rope
 " bsdams-kyi-'dug (dam-) he is tying it with rope
 " sdoms-shig (dam-) remember to tie it
 with rope

¹Also, but less often, tɛɤ: thong.

r: f (2121322): \bar{r} : $\epsilon/\epsilon:/e/$; r: $e/$; \bar{r} : \bar{r} : $a/a:/\wedge/$; r: $\circ/$

f: kha bskyal-ba-red ($kj\epsilon r-$)/($kj\epsilon:-$) he kissed

" bskyal-gyi-'dug ($kj\epsilon:-$) he kisses

" skyol ($kj\epsilon:/$) (also $kj\epsilon:/$) kiss

\bar{r} : bcar-ba-yin ($tj\epsilon r-$)/($tj\epsilon:-$) I visited

bcar-gyi-yin ($tj\wedge:-$) I shall visit

gcor-shig ($tj\circ:-$) mind you visit him

The Rounding term r is regularly represented in Tibetan orthography by o, while \bar{r} is represented by a. Tibetan orthography does not distinguish in this respect between the r form of a e Verb and a w Verb, e.g. the homophones $\check{r}w\epsilon:$ (rngos, 'mow!'; rngod, 'fry!'); but these two are differently treated phonologically, the former (rngos) being er, cf. ($\epsilon\bar{r}$) rnga-gi-'dug ($\eta\wedge-$), 'he mows', rngas-pa-red ($\eta\epsilon:-$), 'he mowed', ma rnga ($\eta\epsilon$), 'do not mow', and the latter (rngod) being w, cf. brngod-kyi-'dug ($\check{r}w\epsilon-$), 'he is frying', brngod-pa-red ($\check{r}w\epsilon:-$), 'he fried', ma rngod ($\check{r}w\epsilon:/$), 'do not fry'.

A list of e Verbs is given at Appendix V, divided firstly by Quality, into z, g, η , etc., and, within this division, into \bar{r} and r/\bar{r} according as they are exemplified exclusively in the \bar{r} Piece or in both r and \bar{r} . For many of the r/\bar{r} Verbs, R. was prepared to accept a \bar{r} Affirmative-Imperative form as an alternative, sometimes

a more common alternative, to the r form. An alternation such as this rather suggests that the r forms, which generally correspond to the Literary-Tibetan Imperative forms, are possibly in the process of being discarded in LT in favour of non-rounded forms.

2121324. Palatalization (y, \bar{y})¹

A further prosodic system, the Palatalization, deals with certain syntagmatically related labial and other features of both initial consonant and vowel of certain prosodic types of Verb Syllable and Particle Syllable, and, further, with features of preceding əz Syllables (e.g. ma/mi, na) in Intraverbal Junction. For example, the degree of backness of the back vowels, and the degree of frontness of the front vowels, varies with the presence of palatality or non-palatality as an initial-consonant feature, e.g. 'ja-gi-'dug-ga (dʒʌ:-), bzhugs-'dug-gas (ʃu:-), bskyil-'dug (kʃi:-), cf. bkag-gi-'dug (kʌ:-), thub-ma-song (thu:-), bsgril-yod (drɪ:-); the degree of vowel closure of Syllables with palatality as an initial-consonant feature is not the same as that of phonologically comparable Syllables with

¹Though identical in symbolization with the y term of the Labialization system (2121321) the y term of this system is unlikely to be confused with it.

initial non-palatalicity, e.g. phye-shig (^htʃɛ-), yod (jɔ:), bzhugs (ʃu:); cf. rtses-shig (tɕɛ-), skol-shig (kɔ:-), sgug (gu:) sdod; the degree of frontness of open vowels also varies with the presence of palatality and non-palatality as Syllable-initial features, e.g. rkyangs-pa-red (kjaŋ-), cf. gnang-ba-red (naŋ-), shar-song (ʃa:-), cf. tshar-song tsha:-).

In addition, the degree of frontness and closeness of vowel of such əz Syllables as the Negative-Particle ma/mi in the z Initial Piece (21213132, iv, vii, ix; for the n Initial Piece, e.g. mi-'dug mindu: see 21213131, ii) and na can be related to palatality and vocality (j) as initial features of the following Syllable, as opposed to combinations of features other than these (r, dʒ, ɲ, etc.); e.g. fronting (ɶ), even to the point of frontness (+ half-openness) (ɛ), in mɛjʃ/mɛjʃ: mi-yong, jɪnɛjʃ:/jɪ:nɛjʃ yin-na-yang 'however that may be'; cf. non-fronting (ə), e.g. mare: ma-red, mapʃ:|ma-myong, jɪ:nɛmɛ: yin-na-min, jɔ:nɛmɛ: yod-na-med.

The Palatalization system therefore applies to (1) monosyllabic Pieces (Verb Syllable or Particle), and (2) certain disyllabic Pieces, those in which the preceding Syllable is əz.

1. monosyllabic Piece

The exponents of the two terms y and \bar{y} are:

y

- a. initial palatality/prevelarity: $j \quad y \quad n \quad \int \quad t\int \quad d\int \quad c/kj \quad \int/gj$
- b. 1. (Part. Syll. in a w Piece) lip-rounding: $y \quad \tilde{n} \quad \tilde{d}\tilde{z} \quad \tilde{j}/\tilde{g}\tilde{y}$
- ii. (otherwise) " -spreading: $j \quad n \quad \int \quad t\int \quad d\int \quad c/kj \quad \int/gj$
- c. 1. (backness + advancing): $\underset{+}{u} \quad \underset{+}{u}: \quad \underset{+}{\tilde{u}}: \quad \underset{+}{o}: \quad \underset{+}{\circ} \quad \underset{+}{\circ}: \quad \underset{+}{\tilde{o}}: \quad \underset{+}{a}: \quad \underset{+}{\tilde{a}}: \quad \underset{+}{\wedge} \quad \underset{+}{\wedge}: \quad \underset{+}{\tilde{\wedge}}:$
- ii. (centrality + advancing): $\underset{+}{i}: \quad \underset{+}{i}$
- iii. frontness $\underset{+}{e} \quad y \quad \underset{+}{e}: \quad y: \quad \underset{+}{i}: \quad \underset{+}{e}: \quad \underset{+}{\epsilon}: \quad \underset{+}{\tilde{\epsilon}}: \quad \underset{+}{\epsilon} \quad a$
- d. 1. closeness/half-closeness/half-openness/
openness: $u: \quad o: \quad \circ: \quad a: \quad \tilde{a}: \quad a \quad \epsilon: \quad e: \quad i: \quad \tilde{y}: \quad \tilde{o}: \quad \underset{+}{e}: \quad y: \quad \underset{+}{e} \quad y$
- ii. (half-closeness/half-openness + raising): $\underset{+}{u} \quad \underset{+}{\circ} \quad \underset{+}{\tilde{u}}: \quad \underset{+}{\tilde{o}}: \quad \underset{+}{\tilde{\epsilon}} \quad \underset{+}{\wedge} \quad \underset{+}{\wedge}: \quad \underset{+}{\tilde{\wedge}}: \quad \underset{+}{i} \quad \underset{+}{\epsilon} \quad \underset{+}{i}: \quad \underset{+}{\tilde{\epsilon}}:$
- e. (w-Verb and er-Verb Sylls.) lips
more spread: $\underset{+}{y} \quad \underset{+}{y}: \quad \underset{+}{\tilde{y}}: \quad \underset{+}{\underset{+}{e}} \quad \underset{+}{\underset{+}{e}}: \quad \underset{+}{\underset{+}{\tilde{e}}}: \quad \underset{+}{\underset{+}{\tilde{e}}}$

\bar{y}

- a. initial non-palatality: $g \quad n \quad s \quad tr, \text{ etc.}$
- b. 1. (er-Verb, 2121323) } lip rounding: $\underset{\sim}{kw} \quad \underset{\sim}{d} \quad \underset{\sim}{dr}, \text{ etc.}$
(w-Piece, 2121321) }
- ii. (otherwise) lip-spreading: $k \quad \underset{\sim}{g} \quad \underset{\sim}{dr}, \text{ etc.}$
- c. 1. backness $u \quad u: \quad \tilde{u}: \quad o: \quad \circ \quad \circ: \quad \tilde{o}: \quad a: \quad \tilde{a}: \quad \wedge \quad \wedge: \quad \tilde{\wedge}: \quad \underset{+}{e} \quad i: \quad \underset{+}{i}$
- ii. centrality $\underset{+}{e} \quad i: \quad \underset{+}{i}$
- iii. (frontness + retraction): $\underset{+}{e}- \quad y- \quad \underset{+}{e}- \quad y:- \quad \underset{+}{i}: \quad \underset{+}{e}: \quad \underset{+}{\epsilon}: \quad \underset{+}{\tilde{\epsilon}}: \quad \underset{+}{\epsilon} \quad a$

d. i. (closeness/half-closeness/half-openness

+ lowering):

u: ɔ: ɔ̃: ɛ: ɛ̃: i: ỹ: ẽ: ɐ: y: ɐ̃ y

ii. half-closeness/half-openness/openness:

u ɔ̃ ũ: ɔ̃: ɛ̃ ʌ ʌ̃: ʌ: ɪ ɛ̃ ɪ: ɛ̃: a: ã ʌ̃:

e. (w-Verb and ər-Verb Sylls.) lips

fully rounded:

y y: ỹ: ɐ̃ ɐ̃: ẽ:

e.g.

y

a. bzhugs-gdan 'jags-mus (dʒʌ:+-)

staying

sku-gzugs bde-po yod-shag (jʰɔ̃-)

I see you are well

b. i. see 21213212, (2-5)

ii. nyon (n̄:ɔ̃:)

listen

kha skyol (kʰj̄:ɔ̃:)

kiss it

c. i. lhas-sa rang-la bzhugs bzhugs-pa-
yin-na (ʃ̄:ɥ̃:-)

used you to live in
Lhasa itself, or - -

sgo rgyab (gʲɣ̄+p)

shut the door
(G. and R.)

ii. mjal-gyi-vin (-j̄ɪ: +)

I will meet

bshad shes-kyi-yod-ma-red (ʃ̄i+ ɣ̄-)

I do not think they
know how to speak

iii. bshad (ʃ̄ɛ:) shes-kyi-yod-ma-red

I do not think they
know how to speak

da-ga rang zhus (ʃ̄:y:) chog

I certainly must
offer

d. i. bka'-mol ra-po zhus (ʃ̄:y:) mchog
(tʃ̄h̄:ɣ̄:)

we must have a
conversation

rkang-pa rkyangs-pa-red (kʲaɣ̄-)

he stretched out
his foot

ii. see (c. ii) above

- e. ga-dus thad-kyi-yod-na (-jə:-) how long is it
since - - -
la bzhugs-shag (ʃu:-) yes, he is at home.

̄y

- a. ga-le thas-a (-ʔa:) good-bye (Bell)
'o-na chibs-bsgyur gnang-go (naŋ) good bye, then
- b. i. brjes 'gro-gi-dug-ga
(dru-, -dug-) it goes and changes,
you know
bkol-shig (kwə:--) load it
- ii. mgyogs-po shes-kyi-a-yin (-ʔa-) I doubt whether I
shall know it soon
dga'-gi-red (ga-) you will do well
to - - -
- c. i. slab-roq (lɛbrə:-) gnang (nã:) please teach
bzo (sə) thub-kyi-'dug (thu:-,
-du:-) he can make
- ii. gzigs-pa-red (sigbe-) he saw
'di-'dras zer-gyi-'dug (sigi-) that is what he says
- iii. mig ma (ma) lta (ta) do not look
sprad-kyi-yin (tre:-) I shall give
- d. i. bris-dus (tri:-dy:-) when I write
rgyal-sgo'i rtsa-la sgug (gwu:-)
sdod (de:-) wait near the main
door (G. and R.)
- ii. skad gzhan-pa slab-dgo-yod-na
(lɛb-, -gwo-) or do you have to
learn other
languages
sbas-se-kob-kyi bltad-mo
lta-ba-red (ta-) they usually see
a film

- e. zhwa-mo gon-shig (kw̃:--) wear a hat
 lam-ka ston-shig (t̃:--) show me the way

The Syllables that constitute *y* and monosyllabic *ȳ* Pieces, whether Verb or Particle, can each be classified as either *y* or *ȳ* accordingly, e.g. *y*: (Vb.), 'jag, yod, nyon; (Part.), rgyu, yag; *ȳ*: (Vb.), gnang, 'gro, bkol; (Part.), dus, a. Verb Syllables are too numerous for listing; but Particle Syllables can be listed as follows:
y: (w), rgyu, byung, nyung/myong, yod, yong; (ə), yang, yag, shag/zhag; (y) byas, shig, bzhin, yin.
ȳ: (w), dus, mus, 'dug, dgos/dgo/go, 'gro/gro, no, long, do, dwogs/dog/rdog, song; (ə), ma/mi, gak/ga/ka, 'dra, tsang, dang, bstang, a, ba/pa/ga/nga/ra, sa, thabs, ta, pas/gas/res, min, med/mad, nyan/mkhan; (y) 'da'i, nas/ni, se/ze, rtsis, red,¹

The *y* term correlates with the Juncture classifications *k*, *c*, *n*, *l*, *s*, and the *ȳ* with the *p*, *t*, *k*, *tr*, *ts*, *n*, *m*, *l*, *s*, *q* (2121314). Thus, any lexical item classified as *c* must be *y*, e.g. (Vb.), bcad, mchod, (Part.) byung, byas; and any lexical item classified as *p*, *t*, *tr*, *ts*, *m*, *q* must be *ȳ*, e.g. (Vb.) phebs, bstan, (Part.) mus, ba/pa/ga/nga/ra.

¹ *y* is regularly represented in Tibetan orthography by the gsal-byed y, ny, sh, zh, c, ch, and j, and by the ya-btags, ky, khy, gy, py, phy, by, my, and ȳ by any letters other than these, e.g. k-, dw-, gr-, a-.

The remainder, lexical items classified as k, n, l, or s, can be either y or \bar{y} , e.g. (Vb.)

	k	n	l	s
y:	<u>brkyang-song</u>	<u>nyan-song</u>	<u>ma yong</u>	<u>shi-gi-'dug</u>
	<u>kjā:-</u>	<u>nē:-</u>	<u>jō:+</u>	<u>ſi+:-</u>
\bar{y}	<u>bkangs-song</u>	<u>gnan-song</u>	<u>var long</u>	<u>zer-gyi-'dug</u>
	<u>kā:-</u>	<u>nē:-</u>	<u>lō:-</u>	<u>si-</u>

Most Verbs have y forms only or \bar{y} forms only; but certain e-Piece Verbs (212132113) have both. These variable e-Piece Verbs are those (i) which are classified in terms of the Quality system as z, d, n, or rf (for f see 2121322), and also (ii) to which the Rounding system (2121323) applies (ezr/ \bar{r} , edr/ \bar{r} , enr/ \bar{r} , erfr/ \bar{r}). Some Verbs of each of these types have a \bar{y} r form (Imperative) in spite of the fact that the \bar{r} forms are y, or, in the case of the ez Verb, in spite of the fact that the $\bar{r}l$ form (but not the $\bar{r}s$, 2121312) is y. In other words, (i) some e Verbs of these types have palatality (n c j) or prevelarity (kj g) in all forms; (ii) others have palatality or prevelarity in some forms (d \bar{r} , n \bar{r} , rf \bar{r} , gl \bar{r}) but velarity (ŋ k g) in others (r, Imperative), e.g.

1. y forms only

erf { y \bar{r} : kha bskyal-ba-yin (kjē:-) I kissed
 yr: " skyol-shig (kjē:-) kiss it¹ kj/kj

¹Also, and perhaps more commonly, kjē:-.

- erf { yṛ: dmag rgyal-ba-yin (gje:-) I won the war
 yr: " rgyal-zhig (gje:-) win the war¹ gj/gj
- en { yṛ: nyan-gyi-mi-'dug (neṅ-) he does not listen
 yr: nyon-shig (ne:-) listen, you n/n
- ii. y and ṛ forms
- erf { yr: bal bkel/khal-gyi-'dug (ce:-/che:-) he spins wool
 ṛr: " khol-zhig (khø:-), spin wool, you c(h)/kh
- erf { yṛ: bgad-mo bgad-pa-red, (gjer-), he laughed
 ṛr: dgod (gø:-), laugh gj/g
- ez { yrl: btsas-ma brngas-pa-yin (ne:-), I reaped the harvest
 ṛrl: " rngos-shig (ne:-), reap the harvest, you² n/n

Those e Verbs which, like bskyal/skyol, rgyal, and nyan/nyon, have y forms only can be classified as y Verbs; those which, like bkel(khal)/khol, bgad/dgod, and brngas/rnga/rngos, have a ṛ form (Imperative) can, by the same principle, be classified as ṛ Verbs. It is of some interest that those ey Verbs which are spelt with ya-btags (-y-) have the ya-btags spelling for all their forms, e.g. bskyal/skyol, rgyal, while the ey Verbs are not spelt with ya-btags at all, e.g. bkel(khal)/khol, bgad/dgod, bkal/bkol, 'load up', in spite of the fact that the ṛ

¹Rare, and rather literary; more commonly gje:-.

²Also rnga-shig (ṛa-).

forms of (i) the y Verb bskyal/skyol and the \bar{y} Verb bkal/bkol, for example, and (ii) the y Verb rgyal and the \bar{y} Verb bgad/dgod, are, respectively, homophones (1. $c/kj\epsilon:-$, and $c/kj\epsilon:-$; ii. $j/gj\epsilon:-$, and $j/gj\epsilon:-$). In this respect the orthography is in harmony with the phonology, but at odds with phonetic analysis.

For those ez Verbs which alternate velarity (η k g) with palatality or prevelarity (η c/kj j/gj) y correlates with $l\bar{r}$, and \bar{y} with lr and with s (2121312).

2. disyllabic Piece

In y Pieces that are also examples of 1 Juncture the second Syllable of the Piece is characterized initially by a non-syllabic front-vowel (j), while the vowel of a preceding ez Syllable in Intraverbal Junction, e.g. ma/mi (Negative), na (Conditional) is characterized by a degree of frontness and closeness ($\underset{\uparrow}{e}/\epsilon$), e.g.

'don-pa'i lugs-srol mi-yong ($m\epsilon j\tilde{3}:$) it is not customary to mine for them (Bell)

gnyes-po rang gnang-mi-yong ($-m\epsilon j\tilde{3}$) they do not much like
vin-na-yang ($-n\underset{\uparrow}{e}j\tilde{3}:$) however (that may be)

grang-mo vin-na-yang ($-n\underset{\uparrow}{e}j\tilde{3}:$) even though it is cold

In \bar{y} Pieces that are also examples of 1 Juncture the second Syllable of the Piece is characterized initially by a non-syllabic back vowel (w), or by alveolarity and laterality (l) or friction (r), while the vowel of a

preceding əz Syllable is characterized by openness and frontness (a; there are no examples of centrality, ə), e.g.

'di nga'i ma-red (mare:) this is not mine (G. and R.)
gas yod-pa-ma-red-pa (-mari-) there is not any, is there.

The same features as for the lȳ Piece (a), with the addition of centrality (ə), also characterize the vowel of a əz Syllable in all disyllabic Pieces in which the Piece is non-l, regardless of whether the Piece is y (with initial palatality, ɲ dʒ, in the second Syllable) or ȳ (with initial non-palatality, e.g. m r, in the second Syllable, e.g.

y
bod-kvi mthong-ma-myung (-mepũ) I have never seen a Tibetan
 one

phebs-lam-la sku mnyel-po I hope you had a good journey
ma-byung-ngas (madʒuŋ-) (G. and R.)

ȳ
thag ra-po mchod-ma-song (-mesũ) it was not sort of decided
'brug-pa yin-na-min (-nemɛ:) whether she is Bhutanese or not
mdas yod-na-a (-neʔa:) would that - - - were here
 (Bell).

mə/mɛ and nə are therefore regarded as the ly-Piece forms of ma/mi and na. It seems strange that the vowel features of ma/mi and na are different in the ly Piece from what they are in other types of y Piece (cy, ny); but there is no suggestion in the material that the phonetic facts

support an account of them in any way different from the one given here (there are no such examples as *-mɛɲũ -ma-nyung, *mɛdʒuŋ- ma-byung-).

212133. Prosodic Systems dealing with Vowel-closure and associated Features

Only one prosodic system is dealt with in this section: Closure.

Closure

The Closure system is set up in order to be able to associate inter-related vowel-closure features extending over two, or three, Syllables within the Word. This syntagmatic relationship can most easily be demonstrated from examples containing lexical items whose vowels vary in association with vocalic differences in the preceding or following Syllables. Thus, in the following pairs of Words, (a) the vowel of the first Syllable varies in association with the differences in the second, e.g.

i. gnang (ã:/ɿ:)

gnang-song nã:sɿ

he gave him

phyag-las gnang-mus (nɿ:my:) red

he is busy working

ii. a (a/ʌ)

a-yod ʔajɔ:

I doubt whether I have

a-yin ʔʌjɪ:

I doubt whether I am

(b) the vowel of the final Syllable varies in association with differences in that of the immediately preceding Syllable, e.g.

i. pas, pa'i (ɛ:/e:)

byas-pas tʃhɛ:be:

on my saying

ma yin-pa'i jimbe:

through our not being

ii. rog (ɔ:/o:)

gnang-rog (nã:ro:) gnang

please give

bslabs-rog (lɤbro:) gnang

please teach;

and (c) the vowels of the first and third Syllables vary in association with that of the second, e.g.

mi/ma (i/ɛ/a), gas/ngas/pas (e:/ɛ:)

mi-'dug-gas minduge:

would there not be

mi-yong-ngas meʃɔŋɛ:

are there not

ma-red-pas marɪʃɛ:

is it not.

The syntagmatically related vowel features are treated as exponents of terms in the Closure prosodic system, applicable to a disyllabic or trisyllabic Piece (the Closure Piece). The Closure system comprises the two terms c (from close) and o (from open), whence any Closure Piece can be classified as a c Piece or as a o Piece.

The most economical form of statement for the exponents of these two terms requires that two grammatical types of Closure Piece be distinguished: 2121331, Verb (Main or

Auxiliary) and Particle; 2121332, Verb Complement and Particle Piece, and Particle Piece (in which both, or all three, Syllables are Particle).

2121331. Vb. (Main or Auxil.) and Part.

A Closure Piece in which the Main or the Auxiliary sub-category of Verb is exemplified is either (i) disyllabic, comprising a Verb Syllable (Main or Auxiliary) and a Verbal-Particle Syllable, in that order, e.g. tʃa:be-bcar-ba-yin I visited, tʃa:ge-bcar-gyi-yin I shall visit, or (ii) phonologically trisyllabic, comprising a Verb Syllable, the Nominalizing-Particle Syllable pa/ba/ga/nga/ra, and the Nominal-Particle Syllable gi/gyi/kyi, e.g. zhing-kha 'di btab-pa'i (tʃbe:) don-dag-la in order to sow this field (Bell), London-la phebs-pa'i (phe:be:) sku-don your reason for coming to London. Since, however, the phonologically trisyllabic Piece is phonetically disyllabic, the following single statement of exponency suffices for both c and o:

c.

i.

closeness	i i: ɪ y y: ỹ u u: ũ:	}	closeness	i i: y y: u u: ũ u:
			half-closeness	e e: o: ɤ
			half-openness	ɛ ɛ: ɔ ɔ: ɜ:
(half-closeness + backness + spreading)	ɤ		openness	a a: ǣ:
			centrality	ə ə ¹

ii.

closeness	i: ɪ: i y: ỹ: y u ũ:	²	}	closeness	i i: y: u
half-closeness	e: o: [ə] [ɐ:] [ɜ:]	³		(half-closeness + backness + spreading)	ɤ
(half-openness + short duration)	ɛ [ɔ]				
(half-openness + long duration + nasality)	ɛ: [ɜ:]				
(half-openness + backness + spreading)	ʌ ʌ: ǣ:			medium centrality	ə
[(openness + backness)	ɐ		(velarity + occlusion + syllabicity)	ɨ	

¹In 212133 ɐ is distinguished from ɔ, and ɛ from ə, but not ɪ from i, ʌ from a, or ɔ from u.

²The only example of i: is provided by bskyed-kvi-'dug (p. 607).

³Features suspected of being due to spelling pronunciation are enclosed in square brackets (p. 598).

o

half-closeness	e: ø ø: ǝ:	{	closeness	i I: u u: Ǟ Ǟ:
			(half-closeness + frontness)	e ø
half-openness	ɛ ɛ: ɛ̃: ɔ ɔ: ɔ̃:	{	half-openness	ɛ ɛ: ɛ̃: ɔ ɔ: ɔ̃:
			openness	a a: ǣ:
openness	ɔ a a: ǣ:	{	centrality	ə

e.g.

c

i.

bsgrigs-kyi-'dug driyi-

he fastens it

zhing-kha 'di btab-pa'i (tɕbe:)
don-dag-lain order to sow this field
(Bell)phul-ba-red phyre-

he offered

bzhugs-shag ju:ja

he is at home

mi-si-tar e-sa-pi-rigs zhu-nyan
(ʃupɛ:) cig

someone called Mr. Sprigg

ii.

snyung-gzhi de phog-gi-mad-'gro
pho:ɣ-

he might catch this illness

'di byed-thabs (tʃhidɕp)
yod-ba-ma-redthere is no help for it
(Bell)bzhugs-gdan 'jag-mus (dʒʌ:my:)
vin-pa-no

is he in residence

dga'-gyi-red gʌge-

you will do well to

phyag-las gnang-mus (nʌ:my:)
red

he is working

hrob-kyi-'dug rʌbgi-

it is gravelly

o

<u>phyag-phebs gnang-byung</u> nã:dʒũ	good morning
<u>rdzogs-shag</u> zo:ʃa	it is all used up
<u>rkang thang-la yong-ngas</u> juŋɛ:	did you come on foot
<u>na-ba-red</u> nabe-	it hurt
<u>bsgres-byas</u> dre:dʒe	having got mixed up

Certain of the first-syllable features that appear in the c exponents at (ii) above (ø ø: ɔ ʃ: ɐ), e.g.

nthong-gi-'dug thɒŋgi- he sees, zhon-gyi-'dug ʃɒŋgi- he mounts, 'phrod-kyi-'dug tʃɒ:gi- he delivers, have been enclosed in square brackets, to indicate that there is considerable doubt whether they should be regarded as genuine. It is probable that it is only in self-conscious utterances, under the influence of the Tibetan orthography, that such vowels as these are to be heard in the first Syllable of a c Piece; this possibility is examined further in the course of considering the alternation in exponency of certain prosodic and phonematic terms below (pp. 607-10). If these features are indeed confined to artificial utterances, they should be removed from the c exponents at (ii); as it is, these features are common to both c and o Piece.

ø, ø:, ɔ, ʃ:, and ɐ are not the only vowels to be common to the first Syllable of both types of Piece; for so, too, are the vowels e:, ɛ, and ʃ:, while the vowels

i, i:, u, ũ, u:, ũ:, e, ɛ, ɛ:, ɔ, ɔ:, a, a:, ǣ:, and **ə** are common to the second Syllable of both types of Piece. The vowels that are peculiar to the c Piece, and therefore provide criteria of the c term, are **i, i:, i:, y, y:, ȳ:, u, u:, ũ:, o:, ɤ, ʌ, ʌ:,** and **ǣ:** in the first (phonetic) syllable, and **i:, y, y:, e:, o:,** and **ɤ** in the second syllable, together with **ḡ**; while **ɛ:, ɔ:, a, a:,** and **ǣ:** (and possibly also **e, e:, ȳ:, ɔ, ɔ:,** and **ɖ** in unself-conscious utterances) are peculiar to the first syllable of the o Piece, and **i:, e,** and **ɛ:** to the second. These vowels therefore provide criteria of either c or o. The identification of a Closure Piece as c or as o, does not of course depend solely on criteria drawn from a single syllable. It may be necessary to cite features of both syllables jointly in order to establish the identity of a given Piece, as, for example, where the vowel of the first syllable is **ȳ: or ɛ:**, and that of the second is **i, u, ũ, u:, ũ:, e, ɛ, ɛ:, ɔ, ɔ:, a, a:, ǣ:,** or **ə**, both of which sets of vowels are common to both c Piece and o Piece. When combined, the two vowels are proof that the Piece in question is o; e.g.

par skyon-ni **cǣ:ni**

having printed

bstan-song **te:sɔ:**

he showed

min-na **mɛ:ne**

if I am not.

Where, however, the vowel of the first syllable is **e:** or **ɛ** (or, possibly, **ø:**, **ɔ:**, or **ɒ**) and that of the second is **ə** or **i**, even the combination of the two vowels (**e:** -- **ə/i**, **ɛ** -- **ə/i**, [**ø:** -- **i**], [**ɔ** -- **i**], [**ɒ** -- **i**]) is not sufficient for determining the prosodic type of that Piece; for such a succession is common to both types of Closure Piece. It then becomes necessary to specify features of the intervocalic consonant or consonants: velarity (**g ɣ**) is sufficient to identify the Piece as c, and non-velarity (e.g. **b n ʃ**) as o, e.g.

e: -- ə	{	oP	te:bə-	<u>ster-ba-red</u>	he gave
		cP	te:gə-	<u>ster-gyi-yin</u>	I shall give
			de:gə-	<u>bsdad-kyi-yin</u>	I shall stay
e: -- i	{	oP	phe:nɪ	<u>phebs-nɪ</u>	having come
		cP	phe:gɪ	<u>phebs-kyi-'dug</u>	he comes
ɛ -- ə	{	oP	təmbe-	<u>bstan-pa-red</u>	he showed
		cP	təŋge-	<u>bstan-gyi-yin</u>	I shall show.

This brief section dealing with criteria, as opposed to exponency, has been included only to show that there is no Closure Piece that cannot be identified, as c or as o; but in order to ensure that every example can be identified, it is essential to include intervocalic consonantal features in certain of the criteria.

Once the criteria of the c and the o terms have been

stated, the means provided whereby the c and the o Pieces can be distinguished, it becomes possible to classify both Verb Syllables and Particle Syllables according as they can or cannot be included in either type of Piece.

A considerable number of Main and Auxiliary Verbs, e.g. shi die, bzhugs stay, lding hover, can be exemplified only in the c Piece, and are therefore classified as cP (or c) Verbs; the remainder, e.g. phye open, klog read, gnang give, can be exemplified in either type of Piece indifferently, and can therefore be classified as c/oP (or c/o) Verbs.¹

Similarly, every Particle Syllable that can be contained in the Main/Auxiliary type of Closure Piece can also be classified as either c (and confined to the c Piece) or c/o (alternatively \bar{c} , or o, and containable in either type of Piece). Since these Particles are much less numerous than Main and Auxiliary Verbs, it is possible to list them:

¹Since there are only two categories, the c and one other, the non-c category could perfectly well be termed the \bar{c} (non-c), or even the o, instead of the more cumbersome c/o. If c and o were adopted as the names of the two categories, the signification of c would be 'confined to the c Piece' and that of o would be 'non-confined'; alternatively, o would signify 'exemplifiable in the o Piece' and c 'confined to the c Piece'.

c

i. gi/gvi/kyi, dus, rgyu, mus, rtsis;ii. thabs;

c/o

i. se/ze, med (mad), rog, dwogs (rdog), do, 'gro (gro),
yong, yod, dgos (dgo, go), myong (nyung), song long,
pa/ba/ga/nga/ra (Nominalizing, Past), pas/gas/ngas/ras,
pa/ga/nga, mkhan (nvan, ga (ka, kag), ta, (b)stangs,
shag/zhag, sa, a (Imperative. Dubitative), byas, tsang,
na, ya/yag, ma/mi, nas (ni);

ii. shig, bzhin, 'dug, byung.

It is significant that the cP Particles are written with one or other of the letters i and u in Tibetan orthography, and with a provided that it is followed by b, while the oP Particles are, with few exceptions (the four Particles in section (ii)), written with one or other of the letters e, o, and a when not followed by b.

An important advantage of applying the prosodic analysis adopted here to the syntagmatically related vocalic features of the two, or three, Syllables of the Closure Piece, and an additional reason for adopting it, is that it enables certain pairs of vowels to be associated with the same term of the Labialization system (y, w, e; 2121321) or with the same V term (21222), as providing alternative exponential features of those terms under alternative

prosodic conditions, one feature being appropriate to the c, and one to the o, Piece.

In the c/o Verb Syllable the following pairs of vowels can be associated:

	1	2	3	4	5	6	7	8	9	10
oP	ɛ	ɔ	a	ɔ:/ɒ	a:/ɑ	ʊ:/ʊ	ã:/a	ɛ:	ø:	ɛ:/ɛ
cP	i	u	ʌ	o:	ʌ:	ũ:/u	ĩ:/ʌ	e:	y:	ĩ:/i

	11	12	13	14
oP	ẽ/ø	ɒ	ɛ:/ɛ	ø:/ø
cP	ỹ:/y	u	e:	y:

The Verbs characterized by these alternations in vowel feature are of the following Quality types (2121311):

(1)-(2) z; (3) z, m; (4)-(5) g, r; (6)-(7) n;

(8)-(9) d; (10)-(11) n; (12) m; (13)-(14) r.

e.g.

- | | | | | | | |
|---|---|----|---------------------|----------------------|--|-----------------------------------|
| 1 | { | oP | <u>dag-zhus</u> | <u>byed-par</u> | <u>tʃhɛba:</u> | in order to revise |
| | | cP | <u>'di</u> | <u>byed-thabs</u> | (<u>tʃhidɤp</u>)
<u>yod-ba-ma-red</u> | there is no help for it
(Bell) |
| 2 | { | oP | <u>'gro-ba-red</u> | <u>drəbe-</u> | | they go |
| | | cP | <u>'gro-gi-'dug</u> | <u>drugy-</u> | | they are going |
| 3 | { | oP | <u>mgo</u> | <u>na-ba-red</u> | <u>nabə-</u> | he had a headache |
| | | cP | " | <u>na-gi-'dug</u> | <u>nagi-</u> | he has got a headache |
| 3 | { | oP | <u>sha</u> | <u>bskams-pa-red</u> | <u>kambə-</u> | he dried meat |
| | | cP | <u>me-shing</u> | <u>skem-gyi-yin</u> | <u>kamgə-</u> | I shall dry firewood |

- 4 { oP klog-pa-yin { logbe-
lo:ge-, lo:be-
cP klog-gi-yin lo:gy- I read
I shall read
- 4 { oP 'byor-ba-red { dzo:be-
dzore-
cP 'byor-gyi-red dzo:gy- he received
he will receive
- 5 { oP bzhag-pa-red { lagbe-
la:be-, la:ge-
cP bzhag-gi-'dug la:gi- he put
he is putting
- 6 { oP { yong-ba-yin junge-, junge-
yong-na jɔ:nə
cP yong-gi-yin jungy- he came
if he comes
I shall come
- 7 { oP { gnang-ba-red nanbe-, nanbe-
gnang-song nɛ:sɔ
cP { gnang-gi-red nange-
gnang-mus (nɛ:my:) red he gave
" "
- 8 { oP bsdad-pa-yin de:be-
cP sdod-kyi-yin de:ge- I stayed
I shall stay
- 9 { oP mchod-song tʃhə:sɔ he drank
cP gsol-ja mchod-kyi-yin tʃhy:ge- we will drink tea
- 10 { oP tha-mag { 'then-pa-red thembe- he smoked
'then-song thɛ:sɔ
cP " 'then-gyi-'dug thingi- " "
he is smoking

oP <u>chu skol-bas</u> kəɾɛ:	did you boil the water
<u>bcol-ba-yin</u> tʃərə-	I entrusted
<u>dkrol-song</u> trə:sʃ	he untied;

but all the available cP examples were, unfortunately, read from a printed text, and can reasonably be considered to be spelling pronunciations (in the case of 'khol-gyi-'dug this suspicion is confirmed by the Reading-Style pronunciation **-ndu:**).

There are certain c/oP Verbs, however, e.g. phebs, bstan, ster, which are not characterized by an alternation in vowel according as they are exemplified in the c or the o Piece (the alternation **e:/ɛ** by which ster and similar r-Piece (Quality) Verbs are characterized is a function not of Closure but of Tempo (21211), e.g. ster-ba-red **te:bə-/tərə-**, khver-ba-red **che:bə-/chərə-**, he carried); e.g.

<u>phebs</u>	{ oP <u>phebs-pa-red</u> phe:bə- he came	} e:
	{ cP <u>phebs-kyi-'dug</u> phe:gi- he is coming	
<u>ster</u>	{ oP <u>ster-ba-red</u> te:bə-/tərə- he gave	} e:
	{ cP <u>ster-gyi-red</u> te:gi- he will give	
<u>bstan</u>	{ oP <u>bstan-pa-red</u> tɛmbə- he showed	} ɛ
	{ cP <u>bstan-gyi-red</u> tɛŋgə- he will show	

In spite of the fact that in this respect phebs, ster bstan, and other Verbs like them, differ from the majority of c/oP Verbs, there is no doubt that they are c/oP; for they can be contained in Pieces that satisfy either the c

or the o criteria. In particular, the half-open degree of vowel aperture of the diagnostic Particles pas and rog (e:, o:) proves it:

rgyal-rtse-la phebs-pas phe:be:

did you come to
Gyantse

rta-la rtswa-chag yag-po ster-bas tere:

did you give plenty
of grass and grain
to the horses

bstan-rog (tE:ro:) gnang

please show me

(not *phe:be:, *tere:, *tE:ro:).

The only Verb to be noted from R. that does provide an example of the alternation of e: with i: is skyed 'give birth to', 'create', for which he would accept ci:gi- as an alternative to ce:gi- in, for example, skyed-kyi-'dug 'they create', with the result that for this Verba cP exponential feature (i:), in skyed-kyi-'dug, alternates with an oP (e:), in e.g. skyed-pa-red ce:be- 'they created'.

Another speaker of the Lhasa dialect, my servant Penjor Phuntshok (dpal-'byor phun-tshogs) (P.), a nobleman of the Tsharong (tsha-rong) family (App. II), would accept the form ci:gi-, but not ce:gi-. Further, the form phi:gi- (phebs-kyi-'dug) was heard from some Lhasa-dialect speakers for R.'s phe:gi-; so that for some speakers at least, some of the Verbs of the type stated in the previous paragraph

as not having alternative vowels in R.'s speech do alternate for some speakers. It is possible that orthography has something to do with R.'s insistence on regarding these types of Verb as being characterized by the same vocalic features in o and c Piece alike; for he gave the orthography as his reason for avoiding in his own speech certain pronunciations that he agreed were current in the dialect. Thus, once they had been pointed out to him, R. readily accepted the alternatives **ɔ:** and **o:**, **a** and **ʌ**, and **a:** and **ʌ:** as his own usage; for there is no orthographic means of symbolizing the latter member of each pair independently of the former; but he was reluctant to accept the alternatives **ø** and **y**, **ø:** and **y:**, **ɛ** and **i**, **ɔ** and **u**, and, at first, **ɛ:** and **o:**; for the latter member of each of these pairs can be symbolized differently from the former, **y**, **y:**, and **u** by **u**, as opposed to the **o** that is obligatory for **ø**, **ø:**, **ɔ**, and **ɔ**, **i** by **i**, as opposed to the **e** that is obligatory for **ɛ**, and **o:** by **e**, as opposed to the **a** that is obligatory for **ɛ:**. To use the closer of the alternative degrees of aperture in the c Piece would, he insisted, result in orthographic and lexical confusion. It was for this reason, R. said, that he made a point of avoiding e.g. **thungy-**, **lyngy-**, and **try:gy-**, in **mithong-gi-'dug**, he sees, **zhon-gyi-'dug** he mounts, and **'phrod-kyi-'dug** he delivers, respectively,

gsol-ja mchod-kyi-yin tʃhy:gy- we will drink tea

Although R. believed, erroneously, that he did not distinguish c and o exponential features for the Verb Syllables go, thon, skom, and mchod, there are two Verbs, 'gro (go) and yong, (come), for which he had no hesitation in accepting alternative vowel-aperture features ((o/u and ɔ/ʒ:/u respectively), e.g. 'gro-ba-red drɔbe- they are in the habit of going, cf. 'gro-gi-'dug drugy- he is coming; yong-ba-red ʃɔŋbe-/ʃɔŋɛ- he came, cf. yong-gi-'dug jungy- he is coming. Since both these Verbs are in very frequent use, much more so than go, thon, skom, and mchod, it is possible that the less common a Verb is, the more R. feels able to resist the alternation of vowel.

No c-Piece Verb Syllable can be characterized by the alternation of vowel aperture, one for the c and one for the o Piece, because it cannot be contained in the o Piece. In the following examples of cP Verbs, all of them also, of course, examples of the c Piece, the Particle category is exemplified by both gi/gyi/kyi, which is a cP Particle, and confined to the c Piece (p. 601), and pa/ba/ga/nga/ra, which is c/o, and can therefore also be exemplified in the o Piece; this has been done so that these examples may be directly compared with the examples of the c/oP Verbs on pages 603-5:

i	<u>shi</u>	<u>shi-ba-red</u>	ʃibə-	he died
		<u>shi-gi-'dug</u>	ʃigi-	he is dying
u:/u	<u>bzhugs</u>	<u>bzhugs-pa-red</u>	{ ʃu:bə-/ʃu:gə- ʃugbə-	he stayed
		<u>bzhugs-kyi-'dug</u>	ʃu:gy-	he is staying
i/ɪ:	<u>ldings</u>	<u>ldings-pa-red</u>	diŋbə-/diŋə-	it hovered
		<u>ldings-song</u>	dɪ:sɔ̃	" "
		<u>lding-gi-'dug</u>	diŋgi-	it is hovering
i:	<u>bris</u>	<u>bris-pa-red</u>	tri:bə-	he wrote
		<u>bris-kyi-'dug</u>	tri:gi-	he is writing
y/ÿ:	<u>methun</u>	<u>methun-pa-red</u>	thymbə-	it matched
		<u>methun-song</u>	thÿ:sɔ̃	" "
		<u>methun-gyi-'dug</u>	thyŋgy-	it matches
ɣ	<u>bslabs</u>	<u>bslabs-pa-red</u>	lɤbə-	he learnt
		<u>bslabs-kyi-yin</u>	lɤbgə-	I shall learn
u	<u>bskums</u>	<u>bskums-pa-red</u>	kumbə-	he drew up
		<u>skum-gyi-'dug</u>	kumgy-	he is drawing up
y:/y	<u>phul</u>	<u>phul-ba-red</u>	phy:bə-/phyrə-	he offered
		<u>phul-gyi-'dug</u>	phy:gy-	he is offering
u:/u	<u>bskur</u>	<u>bskur-ba-red</u>	ku:bə-/kurə-	he sent
		<u>skur-gyi-'dug</u>	ku:gy-	he is sending

(these Verbs are of the following Quality types (2121311):

z, shi; g, bzhugs; ŋ, lding; d, bris; n, methun;
b, bslabs; m, bskums; r, phul, bskur).

Alternation in vowel aperture is much more a feature of the c/o Verb Syllable than of the c/o Particle Syllable; and, in the grammatical type of Piece being considered here, (but cf. also 2121332), only the two Particles pas/gas/ngas/ras and rog (Nominalizing) show this alternation. In the c Piece these Syllables are characterized by the closer of the two aperture features, half-closeness (e:, o:), and in the o Piece by the more open (ɛ:, ɔ:); e.g.

- c e: rgyal-rtse-la bzhugs-pas ju:be: did you stay at Gyantse
khang-pa mdas ge rgyab-pas jɤbe: have you swept this
room (Bell)
- o: phul-rog (phy:ro:) gnang please offer it
bod-skad bslabs-rog (lɤbro:) gnang please teach me Tibetan
- o ɛ: Connaught Hall-la bsdad-pas dɛ:be: did you stay at
Connaught Hall
- rkang thang-la yong-ngas joŋɛ: did you come on foot
(G. and R.)
- ɔ: gnang-rog (nɤ:ro:) please give
yong-rog (jɔ:ro:) byed would you come

The alternation in vowel aperture on the part of these two Particle Syllables pas/gas/ngas/ras and rog is particularly useful diagnostically, as a means of classifying Verb Syllables as c or as c/o, especially where the Verb Syllable is one of those which are not characterized by alternation in vowel aperture (p. 606).

No other single Particle Syllable is characterized by alternative degrees of vowel aperture; but there is a corresponding alternation for combinations of the Nominalizing Particle pa/ba/ga/nga/ra with either the Genitive Particle gi/gyi/kyi/-'i or the Agentive Particle gis/gyis/kyis/s: half-closeness (e:) in the c Piece, and half-openness (ɛ:) in the o:

c e:	{	<u>khos drel brdungs-pa'i</u> (duŋbe:)	while he was beating the mule (Bell)
		<u>dus-la</u>	
o ɛ:	{	<u>zhing-kha 'di btab-pa'i</u> (tʃbe:)	in order to sow this field (Bell)
		<u>don-dag-la</u>	
o ɛ:	{	<u>bvas-pas tʃhe:be:</u>	on my saying your reason for coming to London
		<u>London-la phebs-pa'i</u> (phe:be:)	
		<u>sku-don</u>	

The Pieces given in this paragraph differ from all other examples of the c and the o Piece given above in that they are analysed phonologically as comprising not two but three Syllables, one Verb and two Particle, despite the fact that they are phonetically disyllabic.

Unlike the c/o-Piece Particles (p. 602) the c/oP Verbs are too numerous for listing; but the orthography provides a fairly reliable means of identifying them: they are regularly written with one of the vowel letters e and o, or with a when not followed by b, the same orthographic features as, with certain exceptions, distinguish the c/oP from the cP Particles.

Those c/oP Verb Syllables that are not characterized by alternative vowel-aperture features in accordance with differences in type of Closure Piece are regularly symbolized (i) by e immediately followed by either b, d, or s, and by r or l (the Tempo alternation e:/ε that characterizes Verbs of this latter type, e.g. ster-ba-red te:be-/terε- he gave, is not to be confused with a Closure alternation), e.g. sleb arrive, phebs come, 'gyel fall 'phel spread, rjed forget, brjes change, bzhed fear, ster give, and possibly also bzhes eat, and khver carry;¹ and (ii) by a immediately followed by n, e.g. bstan show, man (a phonetic spelling of min) am/are not, phan profit by, dran recollect, nyan listen to, san listen to.

Like the c/oP Verbs, and unlike the cP Particles (p. 602), the cP Verbs are also too numerous to list; but the orthography regularly indicates them by the vowel letters i and u, and by a when immediately followed by b (cf. also the spelling of the cP Particle Syllables; p. 602),

¹In e.g. bzhes-kyi-yod-pas do you drink, a phonetic form figi- seems to be more common than je:gi-, which is perhaps to be regarded as a spelling pronunciation. Alternative forms chi:gi- and chire- have been observed for e.g. khver-gyi-'dug and khver-ba-red respectively; these would require khver to be classified as cP (p. 601).

any of which orthographic features necessarily indicate that not only the Verb but any Closure Piece containing the Verb must be c, whatever the Closure classification (c, c/o) of the following Particle Syllable may be.

Most of the c/oP Particles, those listed under (i) (p. 602), are written with e, o, and a (excluding ab); but a few of them, those listed under (ii), are, however, written with i and u. It is significant that all six cP Particles are written with i, u, or ab; but, because of the overlapping c/oP Particles listed under (ii), i and u in Particle Syllables fall short of being a guarantee that the Verb + Particle Piece containing them is a c-Piece.

2121332. Vb. (Comp.) + Part. Piece, Part. Piece.

This type of Piece comprises (a) disyllabic and trisyllabic Pieces in which the first Syllable is a member of the Complement sub-category of Verb (vin, yod, red, 'dug, min/man, med/mad, byung, yong) or of a sub-category of Verb Particle comprising vin, yod, red, 'dug, min/man, med/mad, byung, yong, song, and myong/nyung, each of which, apart from song and myong/nyung, is a homophone of one of the members of the Complement sub-category of Verb, and the second Syllable of the disyllabic Piece is the Particle pas/gas/ngas/ras, e.g. vin-pas jimbe: are you, bzhes-kvi-yod-pas -jɔβɛ: do you drink, while the second

Syllable of the trisyllabic Piece is the Nominalizing-Particle Syllable pa/ba/ga/nga/ra, the third Syllable being either the genitive Particle gi/gvi/kyi/-'i or the Agentive Particle gis/gvis/kyis/-s, e.g. de min-pa'i (**membe:**) phyag-las work other than this, gcig-gor ma yin-pas **jimbe:** through or not being alone; or (b) disyllabic and trisyllabic Pieces in which the first Syllable is the Negative Particle ma/mi and the second is one of the Verb Syllables red, 'dug, byung, or yong, e.g. mi-'dug **mindu:** no, there would not be, ma-red **mare** it is not, or one of the Particle Syllables red, 'dug, byung, yong, song, or myong/nyung, e.g. that mchod-ma-song **-mesü** it was not decided 'gro-ma-yong **-mapü** I have never been, while, in the trisyllabic Piece, the third Syllable is the Interrogative Particle pas/gas/ngas/ras, e.g. btang-mi-'dug-gas **-minduge:** has it not been sent, btang-ma-song ngas **-masvɛ:** did he not sent it; or (c) disyllabic Pieces in which the first Syllable is the Dubitative Particle a, and the second is vin or yod, whether Verb or Particle, e.g. yag-po shes-kyi-a-yod **-'aje** I doubt whether I do know it, yag-po a-vin-na **'^aji:-** I doubt whether it is.

The exponents that can be stated for c and o with regard to these three types of Piece are:

e.g.

c

tsha-sa'i mi-'dug-gas minduge: would it not be a hot spot too

gsungs thub-kyi-mi-'dug -mindu they cannot speak

gas mi-'dug mindu: it would not matter

o

1. phebs-plam-la sku mnyel-po ma-
byung-ngas madzunge: I hope you had a good journey (G. and R.)

thag ra-po mchod-ma-song -mesu¹ it was not sort-of decided

'phrog-rlag 'gro-gi-ma-red-pa
-mari- it will all be wasted, it will not.

11. mnyes-po rang gnang-mi-yong -mcju¹ they would not much like it

ga'i byas-mi-yong-ngas -mcju¹ne: would nothing happen

'don-pa'i lugs-srol mi-yong mcju¹5: it is not customary to mine for them (Bell)

(c) First Syllable Second Syllable

c: half-openness \wedge (closeness + frontness) **i i:**

o: openness **a** { non-closeness **e e:**
(closeness + backness)¹ **u**

e.g.

c

chang 'di yag-po a-yin-na 'ajI:- I doubt whether this beer is all right

¹Fast Tempo only.

mg-yogs-po shes-kyi-a-yin -ʔ^hajɪ

I doubt whether I shall
soon know it

o

bzo thub-a-yong -ʔ^hajū¹

I doubt whether they
could make it

la a-yod ʔ^haje

I am not sure that I
have

mang-po a-yong ʔ^hajɔ

I should not think
there are many

Certain features of individual Syllables are common to both c and o exponents; if, therefore, criteria are to be established, they must be drawn from the disyllabic or trisyllabic Piece as a whole. Thus, in (a), closeness as a feature of the first Syllable (^h u) can be common to both c and o; and where that first Syllable is characterized by this feature, it becomes necessary to cite features of the second, either half-closeness (e:) or half-openness (ɛ:), if the Piece is to be identified. In (b) and (c) it is as a feature of the second Syllable that closeness (^h u) is common to the exponency of both c and o term; and here it is necessary to cite features of the first Syllable, and of the third, if any. The overlap in exponency is due in part to the Fast-Tempo variants of red (^hɪ), yong (jū/juɔ), song (sū/suɔ), and myong/nyung (nū/nuɔ).

The Interrogative Particle pas/gas/ngas/ras (a-b), the Negative Particle ma/mi (b), and the Dubitative Particle a

¹Fast Tempo only.

(c) are exemplified in both c and o Piece alike, with appropriate, and distinctive, phonetic forms in each; the remaining Verbs and Particles are exemplified exclusively in the c or the o Piece, and can be classified accordingly:

c-Piece	{	Verbs: <u>'dug</u> , <u>vin</u>
	{	Particles: " "
o-Piece	{	Verbs: <u>red</u> , <u>yod</u> , <u>min/man</u> , <u>med/mad</u> , <u>yong</u> , <u>byung</u>
	{	Particles: " , " , " , " , " , " , " , <u>song</u> , <u>myong/nyung</u> ¹

The prosodic classification of one of these Particles here is of particular interest; for it is at variance with the classification of that same Particle when exemplified in the Main- or Auxiliary-Verb type of Piece (2121331). This exceptional Particle is the Perfect Particle 'dug, a member of the same sub-category of Particle as yod, shag, and med/mad, e.g. phebs tshar-'dug (the doctor) has already left (G. and R.), btang-mi-'dug-gas has it not been sent, bzhugs-'dug-gas have they been staying (cf. bzhugs-yod-pas is he at home, bzhugs-shag he is at home). The Perfect

¹The c Piece is indicated by the presence of 'dug and vin, which are written with the vowel letters y and i; but since y and i are also used in the o-Piece Syllables min/man and byung, these letters do not serve as a sure means of identifying a c Piece. The letters e, o, and a, on the other hand, in the oP Syllables red, med/mad, yod, yong, man/min, do indicate a o Piece; and so do the Syllables min/man and byung, which share i and y with the c Piece.

Particle 'dug is to be distinguished from the Present Particle 'dug: the sub-category to which the latter belongs, together with yod and med/mad, is also colligable with the Verb within Word boundaries, but not immediately, and only when either gi/gyi/kyi or pa/ba/ga/nga/ra is also represented, e.g. tha-mag 'then-gyi-'dug he is smoking, bster-ba(ra)-'dug he would have given (Bell).

The Perfect Particle, on the other hand, is never exemplified in the same Word as gi/gyi/kyi or pa/ba/ga/nga/ra, and is invariably immediately colligated with the Verb except in Negative Clauses, e.g. btang-mi-'dug-gas (Vb.: btang, Neg. Part.: mi, Perf. Part.: 'dug). It is only to the Perfect Particle 'dug that the following remarks apply.

The Perfect-Particle Syllable 'dug can be exemplified in either the c or the o Main/Auxiliary type of Piece, e.g. c, zhus-'dug ʃy:du: have served, bzhugs-'dug-gas ʃu:duge: is he at home; o, phebs tshar-'dug tsha:du: (not *tsha:du:) he has already left, ga-re ga-re chag-'dug (tʃha:du:, tʃhagdu:) mig ltos (G. and R.) (not *tʃha:du:, *tʃhagdu:), and is therefore classified as a c/o-Piece Particle as far as that type of Piece is concerned; but it is restricted to the c type of Particle Piece, e.g. khong-tsho bzhugs-'dug-gas -duge: are they at home (G. and R.) (not *-duge:), bsdad-'dug-gas -duge: are they at home (not *-duge:).

No other Particles have a double classification.

The Present Particle 'dug, which cannot be exemplified in a Verb/Auxiliary Piece, is classifiable only as c-Piece.

It is a little surprising that byung, both the Verb (Complement) and the Particle, should be classified as oP. Since both these lexical items are invariably characterized by closeness (u ũ), one would have expected it to be classified as cP, like the Main-Verb Syllables that are similarly characterized by closeness, e.g. 'thung drink, rdung strike, 'khrung be born, or the Verb-Complement, and the Particle, Syllables 'dug; but in this respect the byung Syllables are exceptional, and have added to the complexity of the exponential statements at (a) and (b) above, because of the need to include u (closeness) in the o exponent as well as in the c, purely for the sake of byung.

The Syllables yong (both Verb and Particle), song, and myong/nyung resemble the forms byung in that they too can be characterized by closeness (u ũ), but differ from them in that this feature seems to be confined to Fast-Tempo utterances. Thus, unlike the forms byung, they can also be characterized by openness (ɒ) and half-openness (ʒ); and it is only to be expected that they should be classified as oP, like phonetically similar Main Verbs, e.g. mithong see, tshong sell, yong come. Nevertheless, the fact that in

Fast-Tempo utterances these oP Particles can be characterized by closeness (u ũ), which is typically a cP feature, does have the effect of making the statement of exponency of o and c much less clear cut than it would be if these Fast-Tempo alternative features were to be omitted.

The distinction in exponency between c and o is also blurred, but regardless of Tempo in this case, by the features characterizing both the Verb-Complement and the Particle Syllables red. Like the cP Verb-Complement and Particle vin the two oP forms red are characterized in the Closure Piece by closeness (1), e.g. red-pas riβɛ: is it, with the result that there might seem to be a conflict between this feature and the half-openness (ɛ:) of the following Syllable pas/gas/ngas/ras; for one might reasonably have expected ɛ:, as in jimbe: vin-pas am I, to match the closeness (1) of the first Syllable. vin, however, is invariably characterized by closeness; while, apart from (-)red-pas (riβɛ:) and (-)red-pa (riβa:), red is characterized by half-closeness (ɛ ɛ:). The oP feature, half-openness (ɛ:), of the second Syllable of red-pas is, therefore, not unusual; and what at first sight appears to be an irregular sequence of vocalic features for a o Piece, 1 -- ɛ:, has been accounted for.

The Closure system relates the alternation in the

exponency of the prosodic term *e* in the three Particle Syllables pas/gas/ngas/ras (cP, *e*::; oP, *e*::), ma/mi (cP, *i*::; oP, *a*, *e*), and a (cP, *Λ*; cP, *a*).¹

¹The alternation of *a* with *e* in the Particle ma/mi has already been dealt with (2121324, 2).

212134. Prosodic Systems dealing with Syllable-initialFeatures: Aspiration

The sole prosodic system of this type, Aspiration, is mainly designed to associate such vocalic features as full voicing (**V**) and partial voicing (**V**_o) with the appropriate Syllable-initial consonant features, and, at the same time, to associate such Syllable-initial consonant features as (i) voice (**g** + **dʒ**, etc.) and voicelessness (**k** **c** **tʃ**, etc.), (ii) liquidity (**m** **n** **ɲ** **l** **l**_o **r** **r**_o **j** **w**),¹ irrespective of voice and voicelessness, (iii) glottality (**ʔ**), and (iv) (friction + voicelessness) (**s** **ʃ** **ʂ**), with the appropriate vocalic features. For example, (a) where partial voicelessness (**V**_o) is a vowel feature, voicelessness must also be a feature of the preceding consonant (**C**), if there should be one; e.g. mtshong-byung **th-** (alias **tʃ**_o-) I saw, byed-thabs **tʃh-** (alias **tʃ**_o-) means of doing, dgongs-pa ma tshung **tsh-** (alias **tsu-**) I am sorry; (b) where voice is a feature of the initial consonant, full voicing must be a feature of the vowel; e.g. 'byor-mad-pa-no **dʒo:-**, **-be-** have you not received; (c) where (i) liquidity (+ voice or voicelessness) (**m** **j** **l**_o **r**_o, etc.),

¹ **w** is exemplified only in the suspect Verb dbang, e.g. dbang-gi-'dug **w^-** he is influential, which may be Literary.

(ii), glottality (^{◌ʔ}), or (iii) (friction + voicelessness) (^{◌s} ^{◌ʃ} ^{◌r}) is a feature of the initial consonant, then also full voicing must be a feature of the vowel (^{◌V}); e.g. (i) 'byor-mad-pa-no -^{me}:-, -^{no}, lhas-pa-red ^{le}:-, -^{re} he plaited; (ii) dbur-gyi-'dug ^u:- he is smoothing, a-yin ^ʔ - I doubt whether I am; (iii) gsungs (^s):) thub-kyi-mi-'dug he cannot speak, hrob-kyi-'dug ^r - [it is gravelly]; (d) where voicelessness accompanies the friction of a Syllable-initial apical affricate, voicelessness must also accompany the occlusion (^{◌tr}); e.g. 'khrug-gi-'dug ^{tr} - he is quarrelling, da yag-po drag-shag ^{tr} - he is quite better now; (e) where voice accompanies the occlusion of the Syllable-initial apical affricate, voice must also accompany the friction (^{◌dr}); e.g. dmag-'khrug -^{dr} - war, 'brel-ba-red ^{dr} - they were connected; (f) where voicelessness is a feature of a non-syllabic vowel (semi-vowel), voicelessness must also be one of the features of the preceding consonant (^{◌kf}); e.g. mkhyen-gyi-'dug ^{kf} - he knows, 'dir khyer (^{kf} -) shog bring it here, kha gyes-song ^{kf} - they separated; (g) where voice accompanies Syllable-initial velarity, voice must also be a feature of a following non-syllabic vowel (^{◌gj}); e.g. kun-mkhyen -^{gj} - learned, rgyal-khrim 'gal-na ^{gj} - (it is not good) to transgress the law (G. and R.); (h) where, in Intraverbal

Junction, voicelessness is a feature of a stop consonant, voicelessness is also a feature of the following plosive or affricate (-**ktʃ**- **-pt**- **-ptʃ**- **-ptr**-), e.g. lhag-chad **-ktʃ**- balance, mgo-btags **-pt**- (st) protection, sa-bcad **-ptʃ**- (st) division of work, mgo-dkrog **-ptr**- (st) upset.

The Aspiration system has two terms, h and ĥ (non-h). A separate statement of exponency has to be made for h and ĥ when exemplified in a monosyllabic Piece (in Interpersonal Junction, i.e. when Word-initial, 2121341), from the statement made for them in the disyllabic Piece (in Intraverbal Junction, 2121342).

2121341. Interpersonal Junction

Two statements of exponency need to be made under this heading, one for Syllables with the Juncture classification \hat{tr} (2121314, v) and also for Syllables with the Juncture classification k (2121314, iii) provided that these latter are also classified as y in terms of the Palatalization system (2121324, ky Syllables), but another for Syllables with all Juncture classifications other than \hat{tr} , e.g. p, \hat{ts} , ky, $k\bar{y}$, (2121314, i-iv, vi-xi). Syllables of the latter type are dealt with first, at (i), and those of the former at (ii); ky Syllables therefore appear in both sections (i-ii).

The following list of exponents of h and ĥ in Interpersonal Junction also draws attention, through the

figures '1' and '2', to correlations with the Tone-1 and Tone-2 Word (212122):

(1)	<u>initial consonant</u>	<u>vowel</u>
h		
1/2	(voicels. + {plos.})	p t k c tʃ
1	(aff.)	ts ¹
		} partial voicels. V _o
h̄		
1	(voicels. + plos./aff.)	p t k c tʃ ts
2	(voice	b d g ɟ dʒ
1	(voicels. + liq.)	l r
1/2	(voice	l r m n ŋ ɲ j ²
1	glot.	•
1/2	(fric. + {voicels.})	s ʃ
2	(voice)	z
2	nil	
		} full voicing V
(11)	<u>occlusion</u>	<u>friction/semi-vowel</u>

h		
1/2	voicels	voicels tr _o kʃ
h̄		
1	voicels.	tr kʃ
2	voice	voice dr gʃ

¹Friction is a Fast-Tempo alternative to affrication; e.g. ma tshang-bzhin sh- (alias sʃ̃-) it being incomplete; cf. tshang-gi-mi-^vdug tsh- (alias tsʌ-) it is incomplete.

²On w- see p. 625, n. 1.

e.g.

(1)

h <u>khebs-na</u> <u>kh-</u> (<u>ky-</u>)	if it should spread
<u>kha gyes-song</u> <u>ch-</u> (<u>ce-</u>)	they separated
<u>shel-dam gcig chag-shag</u> <u>tsh-</u> (<u>tʃa-</u>)	a bottle is broken (G. and R.)
<u>ga-re byed-ka</u> <u>tsh-</u> (<u>tʃe-</u>)	in order to do what
<u>shi tshar-song</u> <u>tsh-</u> (<u>tsa-</u>)	it finished dying
<u>h</u> <u>bkrab-song</u> <u>ky-</u>	he covered it up
<u>skyon</u> (<u>cẽ:</u>) <u>tshar-ra-yin-na</u>	has he, I wonder, finished printing
<u>sus bcag-pa-red</u> <u>tʃa:-</u>	who broke them (G. and R.)
<u>mgo btsug-gi-'dug</u> <u>tsu:-</u>	he is beginning
<u>dga'-gyi-red</u> <u>ga-</u>	you had better
<u>kha gyes-song</u> <u>ʃe:-</u>	they separated
<u>ngas brjes-shag</u> <u>dʒe:-</u>	I have forgotten
<u>lhas-pa-red</u> <u>le:-</u>	he plaited
<u>bslebs-pa-red</u> <u>le:-</u>	he arrived
<u>mig na-gi</u> <u>na-</u>	my eye hurts (G. and R.)
<u>ga-nas yong-nga</u> <u>ʃe:-</u>	where have you come from
<u>char-pa dbabs-pa-red</u> <u>ʃe-</u>	the rain [ʔpattered]
<u>yag-po bzos-song</u> <u>se:-</u> , <u>-sʃ</u>	he made it well
<u>rdzogs-shag</u> <u>ze:-</u> , <u>-ʃa</u>	it has been used up
<u>[ʔar-gyi-'dug]</u> <u>ʃa:-</u>	it is snapping
<u>ʔab-kyi-'dug</u> <u>ʃe-</u>	it is barking

(11)

h yi-ge bris-pa-red tr-
rta khrid (tr-) shog
kha gyes-song kj-
mkhyen-gyi-'dug kj-
^h sprad-kyl-yin tr-
skyon-pa-red kj-
'drigs-song dr-
kha gyes-song gj-

he wrote a letter
bring my horse
they separated
he knows
I shall give
he printed
that was all right
they separated

It has already been mentioned that the exponency of ky Syllables in Interpersonal Junction, e.g. mkhyen kj-/ch-, gyes kj-/ch-, skyed kj-/c-, is dealt with in both sections (i-ii). This is because such Syllables have alternative initial features in accordance with differences in Tempo: in Fast-Tempo utterances (palatality + plosion) (ch-, c-, j-), dealt with under (i), but otherwise prevelarity and a non-syllabic spread front vowel (kj-, kj-, gj-), dealt with under (ii). In (i) it is the syllabic vowel that alternates according as it is contained in a h or a ^h Piece (v v), its degree of voicing being a function of type of Aspiration Piece; but in (ii) it is the non-syllabic vowel (j j) that alternates under identical prosodic conditions, its voice-voicelessness being a function of type of Aspiration Piece, while its syllabic vowel is fully voiced (v) in either type

of Aspiration Piece.

The behaviour of $\hat{\text{tr}}$ -Piece Syllables resembles that of ky Syllables as described in (ii): the voicing feature of the syllabic vowel (V) is constant; but the voice-voicelessness of the fricative part of the initial affricate of these Syllables alternates in accordance with type of Aspiration Piece: voiceless (tr_g) in the h, but voiced in the $\bar{\text{h}}$ (tr dr), Piece. ky Syllables, which figure in both the statements of exponency, thus form a bridge between them both, and, in doing so, provide some justification for treating the $\hat{\text{tr}}$ -Piece Syllables in terms of h and $\bar{\text{h}}$ despite the not inconsiderable phonetic difference that distinguishes their statement of exponency from that of almost all other types of Syllable.

A further justification for analysing the difference between tr_g and tr/dr in terms of h and $\bar{\text{h}}$ is that for Verbs with Transitive and Intransitive forms (App. VII) the h form correlates with Intransitivity and the $\bar{\text{h}}$ with Transitivity, and that this correlation holds good for at least one $\hat{\text{tr}}$ Verb just as much as for non- $\hat{\text{tr}}$ Verbs; e.g.

h	<u>kho-rang-'tsho</u>	<u>'khrug-pa-red</u>	tr_g -	they were disturbed
	<u>dgongs-pa</u>	<u>dkrug-pa-red</u>	tr -	he irritated them

other

h	<u>chu-snod</u>	'di	<u>khang-pa-red</u>	kh-	this pot filled
h̄	"	"	<u>bkangs-pa-red</u>	k-	he filled this pot
h	<u>dkar-yol</u>	'di	<u>chag-pa-red</u>	tʃh-	this cup broke
h̄	"	"	<u>bcag-pa-red</u>	tʃ-	he broke this cup

The correlation of Intransitivity and Transitivity with h and h̄ respectively is a further reason, a grammatical reason, for setting up the Aspiration system in addition to the grounds provided by the syntagmatically associated features.

Lexical items can be classified as h-Syllable or h̄-Syllable (or h-Piece or h̄-Piece). Those which are classified as h̄ can also be of any of the Juncture classifications (p, t, k, c, tr̄, ts̄, m, n, l, s, and, but not in Verbs, q; 2121314); the classification h̄ therefore correlates with p, t, k, etc. h lexical items, on the other hand, can only be p-, t-, k-, c-, or tr̄-Piece, and ts̄-Piece provided that they are also classified as Tone-1. The classification h therefore correlates only with the Juncture classifications p, t, k, c, and tr̄, and with ts̄ when combined with l.

The Words containing the examples of the grammatical correlation of h and h̄ with Intransitivity and Transitivity respectively (above) are all Tone-1; and it will be seen

that all three have voicelessness, and affrication or plosion, as initial features (**tr** tr, **kh** k, **tʃh** tʃ).

Voice, accompanied by plosion or affrication (**b d g ʄ/gʃ dʒ**) is not a possible initial feature of Tone-1-Word Verbs in Interpersonal Junction; in such Words, therefore, the aspiration of the h Piece (**ph th kh ch/kʃ tʃh (t)sh**) is opposed to the non-aspiration of the \bar{h} (**p t k c/kj tʃ ts**), initial voicelessness being common to both types of Piece; e.g.

Tone-1 Word

h p	<u>rgyal-rtse-la phebs-pas</u>	ph-	did you come to Gyantse
t	<u>mthong-ma-byung</u>	th-	I did not see
k	<u>chu-snod 'di khang-pa-red</u>	kh-	this pot filled
ky	<u>mkhyen-gyi-'dug</u>	ch-/kʃ-	he knows
c	<u>mchod-ma-song</u>	tʃh-	he did not drink
tr	<u>gzugs-po khru-yag</u>	tr-	for washing
tʃ	<u>ca-lag tshong-rgyu</u>	tsh-	goods for sale
"	<u>ma tshangs-bzhin</u>	sh- (ft)	it not being complete
\bar{h} p	<u>gong 'di spar-ra-red</u>	p-	he raised the price
t	<u>btang-ma-song-ngas</u>	t-	did he not send
k	<u>skol-ra-yin-pas</u>	k-	have you boiled (Bell)
ky	<u>skvug-gi-'dug</u>	c-/kj-	he is being sick
c	<u>shing bcad-pa-red</u>	tʃ-	he cut wood
tr	<u>sprad-kyi-yin</u>	tr-	I will give

ts̃ mgo btsug-gi-'dug ts- he is beginning

In Tone-2 Words, on the other hand, initial plosion and affrication are accompanied either by voice (and necessarily, therefore, by non-aspiration), in the \bar{h} Piece (**b d g j/gj dz dr**), or, in the h Piece, by (voicelessness + aspiration) (**ph th kh ch/kj tʃh tr**), but not by (voicelessness + non-aspiration). In the Tone-2 Word, therefore, voice is distinguished from voicelessness, and, simultaneously, aspiration is distinguished from non-aspiration. The degree of voicing of the voiced-initial plosives and affricates is, however, only partial (**b̥ d̥ g̥ j̥/g̥j̥ dz̥ dr̥**), and is sometimes barely perceptible; the aspiration-non-aspiration distinction thus seems to be the more important; e.g.

Tone-2 Word

h p	<u>babs-pa-red</u>	ph-	it fell
t	<u>dar-ba-red</u>	th-	it spread
k	<u>gon-gyi-yin</u>	kh-	I shall wear
ky	<u>gas-pa-red</u>	ch-/kj-	it split
c	<u>ga-re byed-kyi-yod-pa</u>	tʃh-	what are you doing
tr̃	<u>skad-cha dris-kyi-yin</u>	tr̃-	I will ask
\bar{h} p	<u>'bar-gyi-mi-'dug</u>	b̥-	it is not burning
t	<u>bsdad-pa-yin</u>	d̥-	I stayed
k	<u>dga'-gyi-red</u>	g̥-	you ought to

ky	<u>bsgyur-ba-red</u>	<u>j̥-/g̊j̥-</u>	he altered
c	<u>lan 'byor-ma-song</u>	<u>dz̥-</u>	he did not get a reply
tr	<u>'grigs-song</u>	<u>dr̥-</u>	that was all right

The aspiration that is such a characteristic feature of the h Syllable in Interpersonal Junction, and that distinguished the h from the \bar{h} monosyllabic Piece, seldom characterizes it in Intraverbal Junction; in Intraverbal Junction with a preceding Syllable both h and \bar{h} Syllables are characterized indifferently by initial voicing in all but a few types of Piece, with matching features for the final consonant of the preceding Syllable. The statement of exponency for h and \bar{h} is, accordingly, more complicated in Intraverbal than in Interpersonal Junction, and, further, is apt to fluctuate in accordance with differences in Tempo.

2121342. Intraverbal Junction

It is first necessary to distinguish between the Verb + Particle grammatical Piece and those disyllabic-Noun grammatical Pieces in which the second element of the compound is a Verb lexical item (cf. also p. 417).

In Pieces of the former grammatical type the voicing features of the initial consonant of the second Syllable of the Piece (Particle), and the final consonant, if any, of the preceding Syllable (Verb), depend not on Aspiration differences but on type of Junction Piece and on Tempo.

These voicing features, and the prosodic systems that account for them, have already been fully dealt with (Juncture, 2121314); here it is only necessary to recall that voice, in both initial and final consonants of the junction (where these are present), is a feature of the p, t, k, c, tr, ts, m, n, l, and q Juncture Pieces (2121314, 1-ix, xi), while voicelessness is, correspondingly, a feature of the s Juncture Piece (2121314, x), except for Syllable-initial glottality (?), which is, of course, neither voiced nor voiceless; e.g. (p Juncture) bsgrigs-pa-red -1:b-/-1:g-/-gb- he fixed it, (ts) slab-tsang -bz- since he teaches, (t) mchod-dwogs (-end-) kha-po red he might possibly drink; (s) gnang-song -ā:s- he gave, skom-sa'i -ms- a scarcity too; bsgrigs-sa -ks- (st) place where it joins, lab-a -p?- tell him, will you. The Syllable-final voicelessness in these last two examples (g-Quality-Piece and b-Quality-Piece respectively) is a function of s Juncture in combination with Slow Tempo; Voice is appropriate to all other conditions.

In those disyllabic-Noun Pieces in which the second lexical item of the compound is classifiable as Verb the position is very much less straightforward. The voicing features of the final consonant (if any; i.e. in certain

types of g or b Quality Piece only), of the first Syllable of the Piece, and of the initial consonant of the second, are a function of type of Initial Piece (2121313), type of Juncture Piece (2121314), type of Quality Piece (2121311), type of Tempo Piece (21211), and, of particular relevance here, type of Aspiration Piece. In stating the exponents of h and \bar{h} all these factors are taken into account; but the statement is made primarily within the framework supplied by the five types of Initial Piece (n, z, m, b, g).

(1) g Initial Piece

The g Initial Piece does not concern the Verb; for none of the lexical items compounded in a (disyllabic) g Initial Piece (21213135) is a Verb lexical item.

(ii) n and m Initial Pieces

In two of the remaining four types of Initial Piece, the n (21213131) and the m (21213133), the initial consonants of the second Syllable have voice as a feature regardless of whether that Syllable is h-Piece or \bar{h} -Piece, and so does the final consonant, if any, of a preceding (g-Quality or b-Quality) Syllable; e.g.

h n <u>rtsa</u> - ['] phar	-mb-	pulse-beat
<u>'phrul</u> - ['] khor	-ng-	magic wheel
<u>dmag</u> - ['] khrug (g-Piece)	-ndr-	war

m	<u>kha-mthun</u>	-md-	harmony
	<u>ja-mchod</u>	-mdz-	libation of tea
	<u>stabs-mthun</u> (b-Piece)	-md-	[?friendly manner]
	<u>tshogs-mchod</u> (g-Piece)	-rdz-	[religious gathering]
h̄ n	<u>thugs-'dod</u>	-nd-	wish
	<u>bstan-'gyur</u>	-ngj-	Tengyur
	<u>tshogs-'du</u>	-rd-	Assembly
	<u>rgyab-'dre</u>	-mdr-	quarrel
m	<u>dgra-'dul</u>	-md-	subjugation

In the n or the m Initial Piece, then, the exponents of h are identical with those of h̄: Syllable-initial voice (and, therefore, non-aspiration) and Syllable-final voice too for preceding Syllables containing final consonants. There are, therefore, no h or h̄ criteria, and no means of distinguishing the h from the h̄ Piece, or vice versa.

(iii) z, or b, Initial Piece; ŋ, n, m, or r Quality Piece

In certain types of z-Initial and b-Initial Piece too the h cannot be distinguished from the h̄ Piece; i.e. the exponents of h and h̄ are the same. This is so in the case of those examples of the z and the b Initial Piece that are also ŋ, n, m, or r Quality Pieces. In these types of Piece the initial consonant of the second Syllable and the final consonant, if any, of the first (a final consonant is not possible in the r Piece) have voice as a feature

regardless of whether the Piece is h or \bar{h} (cf. also (ii), the m and the n Initial Piece); e.g.

h	z	m	<u>rnam-thar</u>	- <u>md</u> -	complete deliverance, biography
	¹ z	n	<u>kun-mkhyen</u>	- <u>ngj</u> -	all-knowing
	² z	r	<u>gsal-byed</u>	- <u>ɛ:dʒ</u> -	[Tibetan alphabetic category]
b	ŋ		<u>shangs-phyid</u>	- <u>ŋdʒ</u> -	handkerchief
\bar{h}	z	r	<u>bskor-sbyong</u>	- <u>ɔ:dʒ</u> -	ambulatory
	z	r	<u>bar-bskor</u>	- <u>a:g</u> -	Parkor (circuit)
	z	ŋ	<u>sangs-rgyas</u>	- <u>ngj</u> -	Buddha
	² z	n	<u>spyen-btsum</u>	- <u>nz</u> -	blink

(for further, and particularly b-Piece, examples one must take Nouns in which the second is not a Verb lexical item).

Although, in such a type of Piece, the h cannot be distinguished from the \bar{h} Piece, the \bar{h} , on the other hand, can to some extent be distinguished from the h: all those examples of this type of Piece which are also examples of the (disyllabic) m, n, l, s, or q Juncture Piece must necessarily be \bar{h} ; for h does not correlate with m, n, l, s, or q Juncture (2121314, vii-xi); e.g.

¹From the available evidence, could equally be treated as m-Initial; and the orthography (mkhy-) supports this.

²From the available evidence, could equally be treated as b-Initial; and the orthography (by-, bts-) supports this.

\bar{h} z n <u>mdang-nub</u>	- $\bar{\lambda}$:n-	last night
z s <u>snyan-zhu</u>	- $\bar{\epsilon}$:j-	application
b s <u>gser-bzo-ba</u>	- \bar{o} :s-	goldsmith
b s <u>shing-bzo-ba</u>	- \bar{i} :s-	carpenter

In the four remaining types of Quality Piece, the z, g, d, and b, the exponents of h are not necessarily the same as those of \bar{h} . This possibility of distinguishing one type of Aspiration Piece from the other is valid regardless of whether the z, g, d, or b Quality Piece concerned is z-Initial or b-Initial; but since the exponents of h and \bar{h} vary according as the Piece is z-Initial or b-Initial, two separate statements of exponency have to be made, for the z at (iv) and for the b at (v).

(iv) z Initial Piece; z, g, d, or b Quality Piece

In those z, g, d, or b Quality Pieces which are also z-Initial, the exponent of \bar{h} is the same as it is in all the various types of Piece considered so far (i-iii); voice as an initial feature of the second Syllable of the Piece, and also as a feature of the final consonant, if any (i.e. in certain types of g or b Quality Piece), of the preceding Syllable; e.g.

\bar{h} z <u>sku-bcar</u>	-ud \bar{z} -	visit
g <u>mig-btsum</u>	-gz-	blink
d <u>'bras-spung</u>	- \bar{o} :b-	Drepung (monastery)

b chibs-bsgyur (-bgj-) gnang please go

Apart from Slow-Tempo utterances the exponent of h is also precisely the same as that of \bar{h} : voice initially in the second Syllable, and as a feature of the final consonant of a preceding (g-Quality-Piece or b-Quality-Piece) Syllable; e.g.

h z phyag-phebs (-ab-) gnang-byung you are welcome

g tshigs-bub (-gb-/-1:b-) rgyab-pa to stumble

d khral-'bab -e:b- tax

b hab-thob -bd- scramble;

but in Slow-Tempo utterances the h Piece is distinguished from the \bar{h} , by voicelessness (+ non-aspiration) as an initial feature of the second Syllable, and as matching feature of the final consonant of a preceding (g-Quality-Piece or b-Quality-Piece) Syllable; e.g.

h z tshe-thar-la (-ct-) btang-ba let (animals) live

z thugs-phan -up- advantage

g lhag-chad -ktf- balance

b rabs-chad-ma -ptf- barren woman

(for d-Piece, and other, examples one must take Nouns, in which the second is not a Verb lexical item).

It is important to note that the h-Piece lexical items in these examples, thar, phan, and chad, are all also classifiable as Tone-1: in the Verbal Phrase they are

confined to Tone-1 Words (212122). Those h-Piece lexical items which are not Tone-1 but Tone-2 seem, like the \bar{h} -Piece lexical items, always to be characterized initially by voice in the z Initial Piece, in Slow Tempo as well as in Fast, with voice as a matching feature of any preceding Syllable-final consonant (g or b Quality Piece); e.g.

h z <u>sku-drag</u>	- udr --	Official
z <u>thugs-dran</u>	- udr -	memory
z <u>thugs-brel</u>	- udr -	busyness
g <u>gug-gug</u> (- u:g -) <u>byed-pa</u>		bow with reverence

(for d-Quality, b-Quality, and other, examples one must take Nouns in which the second is not a Verb lexical item.

Thus, it is only in Slow Tempo, and even then only within the limits of Tone classification, that the h can be distinguished from the \bar{h} Piece. On the other hand, since h does not correlate with the Juncture terms m, n, l, s, and q, such n-Juncture, l-Juncture, and s-Juncture examples as the following must necessarily be \bar{h} :

\bar{h} n g <u>sdug-bengal</u>	- u:p -	misery
n d <u>spyod-nyes</u>	- o:p -	[?evil deed]
l z <u>bka'-slob</u>	- al -	exhortation
s b <u>chibs-gzhol</u> (- pʃ -) <u>gnang-na</u>		you ought to dismount

(v) b Initial Piece; z, g, d, or b Quality Piece

Just as, in the types of example considered in the

preceding section (iv), so too, in examples that are also z-, g-, d-, or b-Quality but differ in being b-Initial, two separate statements have to be for h and \bar{h} according as the second Syllable of the Piece is tonally classifiable as Tone-1-Word or as Tone-2-Word. In the case of the Tone-1-Word classification the second Syllable of the Piece is characterized initially by voicelessness and, in the sole example in the thesis material, by non-aspiration, with voice as a Fast-Tempo alternative; e.g.

h z sna-phyid -ptʃ-/ (ft)-bdʒ- handkerchief;
 but prosodically corresponding examples containing Noun lexical items as second Syllable suggest that in this type of Piece the second Syllable can also be characterized initially by aspiration, though only in Slow-Tempo utterances, usually with matching voice or voicelessness as final-consonant features of a preceding g-Quality or b-Quality Syllable; e.g. bzhes-thus -ipth-(st)/-ipt- butter-milk, wa-phrug -ptʃ-(st)/-ptr- fox-cub, ra-phrug -ptr-/ (ft)-bdr- kid, lug-phrug -ktr-/ (ft)-gdr- lamb.

Where, however, the second Syllable of the h Piece is Tone-2-Word, it is invariably characterized initially by voice; e.g.

h z lha-bris-pa **-br-** painter
 z sa-bris **-br-** [?];

there are in the available material no examples containing a final consonant in the first Syllable of the Piece.

Where the second Syllable of the \bar{h} Piece is classifiable as Tone-2-Word, that Syllable too is invariably characterized by voice, with voice as a matching feature of the final consonant of a preceding g-Quality or b-Quality Syllable; e.g.

\bar{h} z nya-brdung-ba **-abd-** fisherman
 g lkog-brdung (**-vgd-**) btang-ba¹ to scold

(for d-Piece, b-Piece, and other, examples one must take Nouns in which the second is not a Verb lexical item).

Where, however, the second-Syllable lexical item is a Tone-1-Word Verb, that Syllable is characterized initially by non-aspiration, together with voicelessness, but with voice as a Fast-Tempo alternative; and a final consonant in a preceding (g-Quality or b-Quality) Syllable generally has matching features; e.g.

¹ Thought to be a spelling pronunciation: one would expect **kugdŕ:**.

\bar{h} z <u>bzo-blta</u>	- opt -	appearance
z <u>sa-bcad</u>	- abtj -/(ft)- abd₃ - ¹	division of work
z <u>mgo-dkrog</u>	(- opt_r -/(ft)- obdr -) <u>bzos-shag</u>	everything was upset (G. and R.)
z <u>lha-btsug</u>	- p(t)s -	[?].

To summarize, where they are tonally classifiable as Tone-2, both h and \bar{h} Verbs are characterized initially by Voice as second Syllable in this type of Piece; and the voicing features give no clue towards identifying them or the Pieces containing them; but where the second Syllable is a Tone-1 Verb, h Syllables, and the disyllabic Pieces containing them, are thought to be distinguished from \bar{h} , though only in Slow Tempo, by aspiration. On the other hand, since h does not correlate with n , l , or s Juncture, such examples as the following must necessarily be \bar{h} :

\bar{h} n <u>khvi-smyo-ba</u>	- im_p -	mad dog
n <u>ko-mnyed-pa</u>	- om_p -	tanner
s <u>kha bshal-bshal</u>	(- c:f -)	to rinse the mouth
s <u>chibs-bsu-ba</u>	- ips -	luggage.

Part of the function of the Aspiration system, in Intraverbal Junction, is to account for variation in the

¹But khra-bcad -**ad₃**- (not *-**aptj**-/-**abd₃**-) appears to be z-Initial.

voicing of final consonants in the g and the b Quality Piece. Although, in the n and in the m Initial Pieces, and in the **z** Initial Piece except in Slow Tempo, these Consonants have voice as a feature in h and \bar{h} alike, in the **z** Initial Piece in Slow Tempo they have voicelessness in the h and voice in the \bar{h} , Piece; and their voicing features are a function of the Aspiration Piece; e.g.

h g <u>lhag-chad</u>	-k-	balance
b <u>rabs-chad-ma</u>	-p-	barren woman
\bar{h} g <u>miḡ-btsum</u>	-g-	blink
b <u>chibs-bsgyur</u>	-b-	going.

The voicelessness seems, however, to be appropriate only to those h Pieces in which the second Syllable is classifiable as Tone-1; where it is classifiable as Tone-2, voice seems to be the appropriate Syllable-final consonant feature; e.g. tshigs-bub **-g-**.

The Aspiration system also helps to account for alternation in Syllable-initial voicing. In the **z** Initial Piece in Slow Tempo, provided that that Piece is also **z-**, **g-**, **d-**, or **b-Quality**, initial voicelessness (and non-aspiration) is appropriate to a h-Piece Syllable, if also Tone-1, but voice to a \bar{h} , and to a h too if also classifiable as Tone-2; e.g.

h 1	<u>tshe-thar</u>	-t-	setting free
1	<u>lhag-chad</u>	-tʃ-	balance
1	<u>rabs-chad-ma</u>	-tʃ-	barren woman
2	<u>sku-drag</u>	-dr-	Official
2	<u>gug-gug</u>	-g-	obedience
h 1	<u>sku-bcar</u>	-dʒ-	visit
1	<u>'bras-spung</u>	-b-	Drepung (monastery).

2122. Phonematic Systems

The Aspiration system is the last of the prosodic systems to be stated for the Verbal Phrase, and for Verb lexical items outside the Verbal Phrase (in disyllabic Nouns); the only statements that remain to be made are phonematic. Before stating the phonematic systems of Verb and Verbal-Particle Syllables a few remarks are necessary about the effect that the considerable number of the prosodic systems, and the extent of the Clauses, Words, and Pieces to which they refer, has had on phonematic statement.

Almost all of the prosodic systems relate to polysyllabic stretches of material. Tempo (21211) is stated with reference to utterances, Intonation (21212) with reference to Clauses, Tone (21212) and Junction (1) with reference to Words, and the Quantity (2121312), Initial (2121313), Juncture (2121314), Labialization (2121321), Palatalization (2121324), Closure (212133), and Aspiration (212134)

systems with reference to polysyllabic Pieces, though four of these, the Quantity, Labialization, Palatalization, and Aspiration systems apply to monosyllabic as well as to polysyllabic Pieces. The only prosodic systems to apply solely to monosyllabic Pieces (or Syllables) are the Fronting (2121322) and the Rounding (2121323) systems.

21221. C- Systems

One of the effects of the polysyllabic-Piece systems is that Syllables are classified in accordance with the type of Piece in which they are exemplified, as first or as second Syllable of a disyllabic Piece, and, in the case of Verbs, also in accordance with the Tone type of the Word to which each is restricted. Verbs have been classified as Tone-1-Word or as Tone-2-Word; both Verbs and Particles have, for example, been classified in terms of the Initial system, as n-Piece or z-Piece, and also as m-Piece and as b-Piece for Verbs; both Verbs and Particles have been classified in terms of the Juncture system, as p-, t-, k-, c-, $\hat{t}r$ -, $\hat{t}s$ -, m-, n-, l-, s-, or q-Piece, and in terms of the Labialization system, as y-Piece, as e-Piece, or as w-Piece. As a result many Syllables are so closely defined prosodically, each in terms of a number of prosodic systems, that little room is left within each type of Syllable so

defined for paradigmatic contrast, and therefore for phonematic statement. A verb Syllable classified as, for example, Tone-1-Word, as p-Juncture-Piece, and as h-Aspiration-Piece, e.g. phul (ph-/b-), offers no possibility of lexically distinctive contrast in initial consonants. If, therefore, a C-system were set up for this, the lph, prosodic type of Syllable, it could only be one-term: lphC¹-.

One-term C- systems are not a monopoly of the p-Juncture-Piece type of Syllable: t-, k-, c-, tr-, ts-, m-, and q-Juncture-Piece Syllables resemble it in this respect.

Only Syllables classified in terms of the Juncture system as n-Piece (n-, ŋ-, ɲ-), l-Piece (l-, r-, j-, w-,¹ ɭ-, ʀ-), and as s-Piece (2121314, vii, ix, x) offer the possibility of lexically distinctive contrast in initial consonants. This contrast is, however, reduced by the Palatalization system, which associates initial palatality, or non-palatality, with appropriate vowel features (2121324):

n		l		s	
y	<u>ɲ</u> -;		<u>j</u> -;		<u>ʃ</u> -;
ɣ	<u>n</u> - <u>ɲ</u> -;	<u>l</u> - <u>r</u> - <u>w</u> - ¹	<u>ɭ</u> - <u>ʀ</u> -;	<u>s</u> -	ʔ-.

When Syllables of the n, l, and s Juncture classifications

¹Exemplified only in the Verb dbang, which is suspected of not being LT.

have been further classified in accordance with the Palatalization system, only one-term C- systems could be stated for those of them which are y (nyC¹- n-, lyC¹- j-, syC¹- j-); but multi-term systems could be stated for the \bar{y} .

For $n\bar{y}$ Syllables a two-term system, N and D, can be stated; the exponents of these terms are:

nɥ: N: dentality n ʌ: əz: velarity/palatlality n/n
other: velarity n.

Examples of N can be drawn from both Verbs and Particles; but there are no examples of Particles in N, which is in any case rare.

For e-Piece Verbs that are also z Quality-Piece D has two exponents, one, velarity (**ŋ**), for the s Quantity Piece (2121312), and the other, palatality (**ɲ**), for the l (it is only for the z Quality Piece that the Quantity system is statable); for D- Verbs of all other prosodic classifications the exponent of D is velarity only; e.g.

0 ez s <u>btsas-ma</u> <u>rnga-gi-'dug</u>	q- they are harvesting
1 " <u>brngas-yong</u>	q- they harvest
eg <u>bang-chan</u> <u>mngags-yod</u>	q- I have dispatched a messenger
wz s nas <u>rngo-gi-'dug</u>	q- they are roasting barley

N əŋ	(Vb.)	<u>gnang-gi-'dug</u>	n-	he is giving
wr	(")	<u>nor-song</u>	n-	he was wrong
wz	(Part.)	<u>'di-'dras yin-pa-no</u>	-n-	is that how it was
əz	(")	<u>'brug-pa yin-na-min</u>	-n-	whether she is Bhutanese or not

The Labialization classification (ə, w) and the Juncture classification of the above examples have been included because the $n\bar{y}$ phonematic system is not statable for y Labialization-Piece Syllables (212132111) or for those ə-Piece Syllables which are also d or n Quality-Piece (2121311) or f-Piece (Fronting, 2121322): initial velar nasality does not contrast with dental nasality in these types of Syllable.

N is regularly indicated in the orthography by n, and D by ng.

For 1 Juncture-Piece Syllables (2121314, 1x) that are also \bar{y} (Palatalization) and, if Verbal, Tone-2-Word (2W), a two-term C- system can be stated: L, R. The exponents of these two terms are:

L: lateral stricture l; R: friction r.

e.g.

2W L (Vb.)	<u>len-pa-red</u>	l-	he took
(")	<u>lang-song</u>	l-	he got up
(Part.)	<u>bsdad-long</u> (-l-) <u>med</u>		I have no time to stay

2W R (Vb.) la red r- yes, it is
 (") rag-byung-ngas r- did you get
 (Part.) gnang-rog (-r-) gnang please give it

As far as the 2W Verb is concerned, the L term is regularly indicated in the orthography by l-, and the R by r-; and this is also the case for Particle lexical items.

In 1-Piece Syllables that differ from the above only in that they are Tone-1-Word (1W), however, there is at first sight at least a fourfold phonetic contrast: l-, r-, l̥-, r̥-; and these four initial sounds, being in prosodically comparable Syllables, would require a four-term C-system: L, R, LH, RH (LH and RH being digraphs for single Phonematic Units).¹ The phonetic exponents of each of these four terms would, then, be:

L: (lateral stricture + voice)

LH: (" " + voicelessness)

R: (friction + voice)

RH: (" + voicelessness); e.g.

1W L (Vb.) klog-gi-'dug l- he is reading
 (") blang-song l- he got it up
 R (") dbral-shag (also hral-) r- he tore it

¹For a fifth possibility, inw-, see p. 649, note 1.

LH (Vb.) sle-gi-'dug (also lhe-) l_o- he plaits it
lhag-pa-red l_c- it remained over
 RH (") hrob-kyi-'dug r_o- [? it is gravelly]

Correspondingly, as far as the 1W Verb is concerned, the L term is regularly indicated in the orthography by la-btags (kl-, bl-, brl-, sl-), and by the la-mgo lh-, the LH by sl/lh- and lh-, the R by dbr-, and the RH by hr-.

It would of course follow, further, that the phonematic units L and R of this four-term (1W) system could not be identified with the identically symbolized units L and R of the two-term (2W) system stated above as applicable to Tone-2-Word Verbs. Not to be able to make this identification would be a disadvantage, because the 2W example of R, ral 'tear, get torn', and the 1W example of R, dbral (or hral) 'tear, make torn', could usefully be identified, thus making it possible for ral and dbral to be treated as two forms, a Tone-1-Word and a Tone-2-Word, of a single Verb in R-, the 1W form being appropriate to the Transitive Clause, and the 2W form to the Intransitive. It would also be useful to be able to make a corresponding statement for what have thus far been treated as two separate Verbs in L-, lang (2W) 'get up, rise', and blang (1W) 'lift up, raise' (and perhaps, too, for the 2W Verb lab 'speak, tell', and the 1W Verb slob/bslabs 'teach, learn'), that the initial phonematic unit be the same for

both (L), and that the 1W and 2W forms correlate respectively with Transitivity and Intransitivity of the Clause; but neither of these two statements is possible as long as each L and each R has a different systemic value from the other, with one L commuting only with R (and vice versa), in the 2-term system, but the other commuting with R, LH, and RH, in the 4-term system.

On the other hand it cannot but be admitted that, in the available material, the support for associating transitive and intransitive forms, in this way, with an initial phonematic unit being common to them both, is clearly scanty; and it may well be that attempting to force the 1-Piece Verbs into this mould gives undue prominence to a little exploited phonological feature of the dialect; in which case, the L's of the two phonematic systems, and the R's, should be allowed to remain distinct (though the phonetic identity of the features **l-** and **r-** associated with each makes it convenient for them to share the symbols L and R).

However, the equal status of LH and RH with the L and the R of the 4-term system is not as sure as it might be: (i) the sole Verb example of RH, hrob (**r-**), is rare, and possibly onomatopoeic; (ii) of the only two Verb examples of LH, sle/lhe, lhas, 'plait', and lhag 'remain over, be surplus', the former has voice (**l**) as an

alternative initial feature to voicelessness, sle/lhe-gi-'dug
'l/ḷ-) 'he plaits', lhas-pa-red (l/ḷε:-) 'he plaited', and
 the latter seems to have a literary flavour. If, therefore,
 for any of these reasons, these three somewhat suspect
 examples were removed from the phonematic categories LH and
 RH, only the two terms L and R would then remain, as a 2-term
 system (1W), the phonetic exponents of each of which would
 then be given precisely the same statement as each of the
 two terms L and R of the 2W phonematic system (p. 651):

L: lateral stricture **l**; R: friction **r**.

There would then be no difficulty over identifying the L's
 and the R's in the two systems, or over treating as tonally
 distinguished forms (1W, 2W) of a single Verb the pairs of
 Verbs associated on pages 653-4 above.

Corresponding systemic problems would, of course, arise
 if the Verb dbang (**w-**) 'be influential' mentioned on page
 649 (note 1) above were admitted on the same terms as the
 controversial LH- and RH- Verbs above, as an example, the
 sole example, of a further 1W phonematic unit (W-).

For s-Juncture-Piece Syllables that are also \bar{y}
 (Palatalization) a two-term system could be set up. It

would certainly be valid for the w-Piece Syllable and for those ə-Piece Syllables which are also z-, g-, ŋ-, b- or m-Quality (2121311) or r-Quality and \bar{f} 2121322) (cf. also N and Ŋ, p. 651 above); but, since there are no Verb examples of \bar{r} - in y-Piece (Labialization) Syllables or ə-Piece that are also d- or n-Juncture, or f (though there are Noun examples), it is doubtful whether it applies to them. The two terms of the system are S and Q; and their exponents are:

\bar{s} S: (alveolarity + coronality + friction + voicelessness) S
Q: (glottality + plosion) \bar{r}

e.g.

S (Vb.)	<u>ga-re gsung-gi-'dug</u>	S- what is he saying
(")	<u>yag-po bzos-song</u>	S- he did it well
(Part.)	" "	-S- " " " "
(")	'gro-sa (- \bar{s} -) <u>mi-'dug</u>	there is no way
Q (Vb.)	<u>char-pa dbabs-pa-red</u>	\bar{r} - the rain [?pattered]
(")	<u>snag-tsha dbur-gyi-'dug</u>	\bar{r} - he is mixing ink
(Part.)	<u>yag-po shes-kyi-a-yod</u>	- \bar{r} - I do not think I do know it well
(")	<u>bzhugs-gdan 'jag-a</u>	- \bar{r} - do sit down.

If this system were treated as not valid for the y-Piece (Labialization) Syllable, y-Piece examples of S-,

e.g. bsil-ra-red **s**- it got cold, zer-ba-red **s**- he said, could not be treated as examples of S; for there would be no Q in that type of Syllable to commute with it. The features (alveolarity + coronality) (**s**) would then have to be treated as the exponent of a single initial C unit (if such a unit were recognized; cf. pp. 659-64).

S is generally indicated in the orthography by s and by z, while **Q** is indicated by db- and by UN-, which is transliterated by absence of any of the initial-consonant symbols.

21222. V Systems

The possibilities of setting up V systems are restricted in much the same way as they are for C- systems. Here, it is the Quality (2121311; z-, g-, ŋ-, d-, n-, m-, and r-Piece), Labialization (2121321; y-, ø-, and w-Piece), and Closure (212133; c-Piece and c/oPiece, or, simply, o-Piece)¹ prosodic systems that define Syllables so closely as to reduce the possibility of paradigmatic contrast within each prosodic type of Syllable to nil for all Verb Syllables other than those which are both r-Piece (Quality) and w-Piece (Labialization). Two-term systems could be established, for Syllables such as these, one for the c-Piece

¹Cf. p. 601, n.1.

(Closure) Syllables, the two terms being U and Y, and one for the c/o-Piece (α o-Piece), the two terms of which are O and \emptyset , The exponents of these terms are:

c U: backness **u:/u** Y: frontness **y:/y**

c/o O: " **o:, ɔ:/v** \emptyset : " **y:, ø:/ø;**

e.g.

U skur-gyi-'dug **-u:-** bskur-ba-red **-u:-/-u-** he is sending, he sent

sdur-gyi-'dug " bsdur-ba-red " he is comparing, he compared

Y phul-gyi-'dug **-y:-** phul-ba-red **-y:-/-y-** he is offering, he offered

skul (**-y:-**) thub-yong bskul-ba-yin " she can raise (Bell), I assigned

O 'byor-gyi-'dug **-o:-** 'byor-ba-red **-o:-/-p-** he is receiving, he received

shor-gyi-'dug " shor-ba-red " he is slipping into, he slipped into

\emptyset skol-gyi-'dug **-y:-** bskol-ba-red **-ø:-/-ø-** he is boiling, he boiled

bcol-ba-red " he entrusted

The U and the O terms are regularly indicated in the orthography by u and o respectively when followed immediately by r, and the Y and the \emptyset terms by y and ø respectively when immediately followed by l.

For all other types of Syllable, z, g, ŋ, d, n, and m Quality-Piece and those r-Piece Syllables which are also y or ø Labialization-Piece, a one-term system is the only

type of V system that could be set up.

21223. -C Systems

As regards -C systems the eight-term Quality system results in the classification of Verb and Particle Syllables as z-, g-, ŋ-, d-, n-, b-, m-, or r-Piece (there are, fortuitously, no examples of r-Piece Particles); and, since no lexically distinctive contrast is possible in final consonants for Syllables of any of these eight types, such -C systems as could be set up would have to be one-term. These would be for the g, the ŋ, the ^{the b,} n, the m, and the r Quality-Piece Syllable, each of which can, under certain conditions, be characterized by final consonantal features.

21224. Comment

With few exceptions, ($\bar{n}\bar{y}C^2-$, $l\bar{y}C^2$, $cwrV^2$, $owrV^2$), then, the phonematic systems set up for LT would have to be one-term. If however, the term system were so defined that commutation was one of its criteria, then, clearly, the term system could not be applied to what have hitherto been called one-term systems; for their single terms do not commute. This definition would not exclude the possibility of recognizing single C and V phonematic units, in the appropriate prosodic types of Syllable; but it would deny them the designation system. The phonematic part of the phonological statement would then consist of (i) phonematic

systems, e.g. C^2- , V^2 , and (ii) single phonematic units (C^1- , V^1- , $-O^1$).

There are, however, arguments against recognizing single phonematic units, whether or not they are termed one-term systems. One such objection is that it unnecessarily duplicates statements already made in the prosodic part of the phonological analysis: the features that might reasonably be attributed to one of the single phonematic units have already been attributed to the Syllable that these features characterize in the course of stating prosodic systems for the Word (21212) and for polysyllabic and monosyllabic Pieces within the Word (21213). In other words passages would need to be extracted from the statements of exponency of the terms of the prosodic systems, and repeated for the benefit of the single C and V units.

A further objection is that it is not easy to know what features to state as exponents of, for example, single C units. In some examples there appears at first sight to be no difficulty: Thus, for example, in the first Syllable of **sig'bere** gzigs-pa-red he saw, (velarity + occlusion + voice) (**g'**) as exponent of the sole -C term of this g-Quality-Piece Syllable, (velarity + nasality) (**ŋ**) for the sole -C term of the first, and ŋ-Quality-Piece, Syllable of **nanbere** gnang-ba-red he gave, and (alveolarity

+ friction + apicality) (**r**) for the sole -C term of the first, and r-Quality-Piece, Syllable of **ɟorɛrɛ** bsgyur-ba-red he moved;¹ but in the alternative pronunciations of gzigs-pa-red as **si:bere**, and the alternative pronunciation of bsgyur-ba-red as **ju:bere**, and the pronunciation of gnang in gnang-song **nã:sɤ**, there are no final-consonant features in the first Syllable. Either, then, (i) two different statements of Syllable structure would have to be made for each of these three lexical items, gzigs, gnang, and bsgyur, one with a -C term, its exponents being drawn from **g'**, **ɲ**, and **r** respectively, and the other without a -C term, the exponents of its V term being drawn from **i:**, **ã:**, and **u:** respectively, or (ii) the exponents of the terms -C would be stated as phonetic nil wherever there were no consonant features to state, or (iii) some of the features of the vowels **i:**, **ã:**, and **u:** would have to be stated as exponents, appropriate to certain prosodic conditions, of each of the respective -C terms.

The first of these possible solutions would be highly inconvenient: probably a clear majority of lexical items in the language would have to have two syllable structures; and a third possible phonetic form for gzigs-pa-red, **si:gure**, with long vowel duration and velar plosion, would probably make three separate statements of syllable structure

¹ In 21224 a more detailed transcription has been used, in which **ɭ** is distinguished from **l**, **ɑ** from **a**, **ɛ** from **e**, and **ɔ** from **u**.

necessary for this and all other g-Quality-Piece Verbs.

The second possible solution also rests on the assumption that vocalic features cannot be stated as exponential features of C units. It would result in the widespread use of phonetic nil as exponent of the -C unit of g-Piece, ŋ-Piece, n-Piece, and r-Piece Syllables. It would in fact be certainly the commonest exponent of r-Piece -C, probably the commonest exponent of g-Piece -C, and possibly the commonest exponent of ŋ-Piece and of n-Piece -C. It is questionable whether it is worthwhile to establish -C units simply in order to be able to state phonetic nil, in itself a dubious concept, as their commonest exponent.¹

The third possible solution would be to state as exponents of the -C term, of gzigs, for example, not only the consonantal features suggested above (*g'*), as in *si^{g'}bere*, but also (velarity + plosion, *g*), as in *si:gere*, and, presumably, some of the vocalic features of the first Syllable of *si:bere*, possibly those which distinguish *si:-* from *si^{g'}:*: long duration and comparative closeness and backness. Similar treatment would then have to be given

¹ Nil would be indiscernible at the phonetic level without prior phonological information.

to bsgyur: the exponents of the -C unit would be those stated above (alveolarity + friction + apicality, **r**) in Fast-Tempo utterances, but otherwise long vowel duration (:), and the relative closeness and backness of **u**, in **ʃu:bere**, as compared with **ə**, in **ʃerere**. The exponent of the sole -C unit of gnang would be, similarly, (velarity + nasality), **ŋ**) for examples such as **naŋbere**, or **naŋere**, gnang-ba-red he gave, but, perhaps, such vocalic features as nasality, long duration, and relative backness in **nã:sɔ̃** gnang-song he gave.

The difficulty over allotting vocalic features to lone -C units is that it is difficult to know, in the absence of contrasting -C units, what vocalic features to extract for this purpose, and where to draw the line. What features, consonantal or vocalic, of e.g. **sɿg'bere**, **sɿ:gere**, and **sɿ:bere**, the three phonetic forms associated with gzigs-pa-red he saw, are to be stated as exponents of the final C? Clearly (velarity + occlusion, **g'**) and (velarity + plosion, **g**) are acceptable for this purpose; but which vocalic features are to be drawn from **sɿ:bere**? If long duration and relative closeness and frontness as compared with **sɿg'** are taken as exponents of -C in the case of **sɿ:bere**, why should they not also be taken in the case of **sɿ:gere**, in addition to (velarity + plosion) **g**? If these vocalic

features are extracted from **si:bere** and **si:gere**, why should not the contrasting features short duration and relative centrality, which are associated with **g'**, be extracted from **sig'**-? The vowels **i:** and **ɪ** would then be largely stripped of features.

No such difficulties arise where phonematic units are not single but terms of commutation systems; for their exponents are those features only which distinguish the one commutable from the other or others, e.g. backness versus frontness (U versus Y, and O versus Ø; p. 658), laterality versus friction (L versus R; p. 651), and dentality versus velarity or velarity/palatality (N versus ɳ; p. 650).

There would seem, then, to be advantages in recognizing phonematic units only where systems, of commutables, can be established; in which case the only phonematic units recognized would be those on pp. 650-58, N and ɳ, L and R, S and Q, U and Y, and O and Ø; there would be no single phonematic units (alias one-term systems).

APPENDIX I

TRANSLITERATION, PHONETIC TRANSCRIPTION, AND TRANSLATION

Transliteration

The system of transliteration used in the thesis is a slightly modified version of the one that was adopted for the Linguistic Survey of India (Calcutta, 1909):

क॑	<u>ka</u>	ख॑	<u>kha</u>	ग॑	<u>ga</u>	ङ॑	<u>nga</u>
च॑	<u>ca</u>	छ॑	<u>cha</u>	ज॑	<u>ja</u>	झ॑	<u>nva</u>
ट॑	<u>ta</u>	ठ॑	<u>tha</u>	ड॑	<u>da</u>	ढ॑	<u>na</u>
प॑	<u>pa</u>	फ॑	<u>pha</u>	ब॑	<u>ba</u>	भ॑	<u>ma</u>
त॑	<u>t̥sa</u>	थ॑	<u>t̥sha</u>	द॑	<u>d̥za</u>	ध॑	<u>wa</u>
ण॑	<u>zha</u>	त्र॑	<u>za</u>	न॑	<u>'a</u>	य॑	<u>ya</u>
र॑	<u>ra</u>	ल॑	<u>la</u>	श॑	<u>sha</u>	स॑	<u>sa</u>
		ह॑	<u>ha</u>	अ॑	<u>a</u>		

ཀ་	<u>kwa</u>	ཁ་	<u>khwa</u>	ག་	<u>gwa</u>	etc.
ཅ་	<u>kya</u>	ཅ་	<u>khya</u>	ཅ་	<u>gya</u>	"
ཀ་	<u>kra</u>	ཁ་	<u>khra</u>	ག་	<u>gra</u>	"
ཀ་	<u>kla</u>	ཀ་	<u>gla</u>	ཀ་	<u>bla</u>	"
ག་	<u>gha</u>	ཀ་	<u>dha</u>	ཀ་	<u>bha</u>	"

ག་ etc. ག

ཀི ki ཀུ ku ཀེ ke ཀོ ko

ཏ་ ta ཏ་ tha ཏ་ da ཏ་ na ཏ་ sa ཏ་ ksa

When prefixed by ག (g) ག is transliterated by .y, e.g.

གཡུ (g.yu), in order to avoid confusion with གཡ (gy), e.g. གཡུ (gyu). This practice follows R. de Nebesky-Wojkowitz, Oracles and Demons of Tibet, ('s-Gravenhage, 1956); cf. also Turrell Wylie, 'A standard system of Tibetan transcription', HJAS, 22 (1959), 261-7.

In the above table a transliteration into the Roman script has been set beside Tibetan forms in the dbu-can script; for this is the Tibetan script that is most familiar to foreigners. In Tibet however this script is normally used only in printing; and only one of the hand-written texts used as sources of examples for the thesis is written

in it. R.'s only reason for using the dbu-can script in this text was that at that time it was the only Tibetan script that I knew. The remaining hand-written texts are in dbu-med scripts, the body of the text in 'khyug-yig and the title in bru-tsha.

In the dbu-med texts a number of contractions occur, e.g. རྒྱུ་, chu-tshod (ཏུ་རྒྱུ་), 'o'clock'; རྒྱུ་, rin-po che (རྒྱུ་པཎ་ཏུ་), 'Reverend'; རྒྱུ་ yi-ge (ཡི་གེ), 'letter'; but the uncontracted form has been used for the transliteration.

The punctuation of the hand-written texts comprises two symbols, the tsheg (ཅེག) and the shad (ཤ), and the presence or absence of a space between (orthographic) syllables. The tsheg marks the end of the orthographic syllable, and, except for contractions, no orthographic syllable is without it;¹ the shad marks the end of a text; space marks the end of clauses and sentences, but is not used consistently: there are examples of both clauses and sentences where the end of the clause or sentence is not spaced off from

¹The institutionalized syllable of Tibetan orthography does not always correspond to the syllable established in the thesis for the phonological analysis of LT; and e.g. the orthographic monosyllables ga'u, khāu, 'little g', 'charm-box', di'i, /di:/, 'of this', and kho'i, -khə:, 'of him', are here treated phonologically as disyllabic.

the following clause.

The transliteration however does not follow the Tibetan text in this inconsistency: end of clause and end of sentence are in all cases indicated, whether or not these have been spaced off in the Tibetan text. Further, a distinction in punctuation has been introduced in the transliteration through the use of a comma to indicate end of clause, and a full stop to indicate end of sentence, though there is no warrant for any such distinction in the Tibetan orthography.

A further departure from Tibetan orthographic practice is the use of two different symbols for transliterating the tsheg: a space where the tsheg co-incides with a Word boundary, and a hyphen where it does not. Thus the transliteration of the Tibetan text indicates Word boundaries; but the original, in the Tibetan script, does not.

The modifications in the punctuation of the Tibetan text in its Romanized form have been introduced for the sake of easier comparison of the three parts into which most of the examples fall: phonetic transcription, transliteration into the Roman script, translation (or translation meaning).

Phonetic Transcription

The punctuation of the phonetic transcription is parallel to that used in the transliteration, and is in black ink to distinguish it from the phonetic symbols, which are indicated by red ink.

The phonetic symbols have the values assigned to them by the International Phonetic Association, but with the following few changes, which have been introduced as being typographically more convenient:

I. friction in which the dorsal area of the tongue and the alveolar ridge and forward area of the hard palate are concerned is symbolized by **ʃ** (I.P.A. **ʃ**);

II. affrication with dorsal contact and the same localization as for **ʃ** is symbolized by **tʃ**, **tʃh**, **dʒ** (I.P.A. **tʃ**, **tʃh**, **dʒ**);

III. in general **r** symbolizes friction with alveolar localization (I.P.A. **ɹ**); but in the very few paragraphs where it is necessary to distinguish alveolar friction (I.P.A. **ɹ**) from a rolled articulation with alveolar localization (I.P.A. **r**), e.g. p.24, **ɹ** and **r** have their I.P.A. values, this special use of **ɹ** and **r** being indicated by footnote.

IV. an alveolar lateral with clear (palatal) timbre has been symbolized by **l̥** (p.22).

Where the I.P.A. symbols are ambiguous, as in the case of **t**, **d**, and **n**, the usage of the thesis is as follows:

- I. **tr**, **tr̥**, **dr**, **ndr**, **nz**: alveolar (I.P.A. **t̥** **d̥** **n̥**)
 II. **t**, **d**, **n**, **nd**: dental (I.P.A. **t̪**, **d̪**, **n̪**).

It has sometimes been necessary to introduce additional symbols, where, for example, a particular phonetic feature has no I.P.A. symbol. Thus I have followed Eugénie J.A. Henderson in using (') to symbolize closure without audible release, e.g. **p'**, **t'**, **ʔ'**.¹ Pause is indicated by ---; and whisper by underlining, e.g. **ne**. **C** symbolizes a consonant, **V** a vowel, **P** a plosive, **N** a nasal, **F** a fricative, **L** a liquid (**l**, **r**, **j**), and **S** a sibilant (**s**, **ʃ**) or glottal plosive (**ʔ**).

As regards the degree to which phonetic detail is symbolized, the phonetic transcription shows the minimum. Thus **ɪ** is distinguished from **i**, **ə** from **u**, **ɑ** from **a**, **ɐ** from **ɔ**, and **ɞ** from **e** only where this degree of phonetic detail makes a contribution to the argument at that point; otherwise **i:**, **u:**, **a:/ã:**, and **ɔ:/ɔ̃:** represent I.P.A. **i:**, **u:**, **a:/ã:**, and **ɔ:/ɔ̃:** respectively, while **u/ũ:**, **a**, and **ɔ**, and **ɪ/ɪ(:)**, represent I.P.A. **ʊ/ʊ̃:**, **a**, **ɐ**, and **ɪ/ɪ̃(:)** respectively; and, further,

¹Eugénie J.A. Henderson, 'Prosodies in Siamese', Asia Major, 1, Pt. 2, 190.

pitch marks, which add considerably to the complications of a transcription, and decrease its legibility, are shown only where they are essential. Parts of the thesis in which a more detailed transcription has been used are indicated by footnote.

Translation

Where an example has been taken from the text of one of the unscripted recordings (see Appendix II, pp. 672-5), the translation takes into account all relevant situational factors, and attempts a stylistically suitable English version of the Tibetan; where the source of the example is a published work, the translation given is that of the original, and is acknowledged as such (see Appendix II, p. 676); where the example is from some other source (usually from field notes), a translation meaning is offered, i.e. one of a number of possible translations, from which it is impossible to choose one in preference to the others without a knowledge of the relevant situational factors.

APPENDIX II

LT TEXTS

As far as possible, examples are taken from the texts of recorded material rather than from field notes. The most satisfactory of these texts are those which were written down subsequently from free, or unscripted, recordings; for such recordings are much less influenced in pronunciation and vocabulary by Classical Tibetan (cf. also pp. 14-26, Reading and Spelling Styles) than those which were read from a written or printed text.

Texts from Unscripted Recordings

The most useful texts, and the primary source of examples, are therefore those taken from five recordings made on wire in Kalimpong (1950). The texts were written down by my servant, dpal-'byor phun-tshogs (P.), an educated Tibetan of noble family, (Tsharong, tsha-rong), from repeated play-backs. These five texts are:¹

I. sku-zhabs rigs-dbang lags dang mthar-phvin sba-bu lags-kyi lcam-chung a-ba bu lags bcas-kyi bka'-mol bkod-par dge'o; 'Recording of a Conversation between Mr. Rigwang,

¹ Four long LT texts were also written down from unscripted recordings made in Gyantse, Tsang Province, Tibet, in the same year; but, since R. had no part in these, and the thesis is restricted to an account of his form of LT, these texts are not relevant here.

Mrs. Tharchin, and her son'; (The Rev. Mr. G. Tharchin, of Kalimpong, is R.'s uncle). The three speakers discuss conditions and prospects in the printing trade (the Rev. Mr. Tharchin edits and prints the Tibetan newspaper, yul-phyogs so-so'i gsar-'gyur me-long), R.'s work as a teacher of Tibetan, and the education and future of the Tharchins' son.

II. sku-zhabs rigs-dbang lags dang mthar-phyin sba-bu lags-kyi drung-yig lags lhan-gnyis-kyi gsung-mol dge'o; 'A Conversation between Mr. Rigwang and Tharchin Babu's Compositor'. In answer to R.'s questions the compositor introduces himself, and describes the various articles of printing machinery, and the different processes used in printing. They then discuss local and Tibetan news.

III. sku-zhabs rigs-'dzin dbang-po lags dang byams-pa gsang-mda' lags lhan-gnyis-kyi bka'-mol bkod-par dge'o; 'Recording of a Conversation between Mr. Rinzin Wangpo and Champa Sangda'. (Champa Sangda was at one time choir-master to the former Regent of Tibet, the late Reting Rimpoche - (rwa-sgreng rin-po che), and is accounted one of the two best exponents of Tibetan classical music - gsung-rnams, or rnams-thar. At the time of recording he was acting as Dr. G. de Roerich's informant). The two speakers discuss their work as Tibetan-language informants,

their first meeting, when Champa Sangda entertained the guests with Tibetan classical songs, and local news.

IV. sku-zhabs rigs-dbang lags dang byams-pa gsang-mda'
lags phun-tshogs bcas dge'o; 'Mr. Rigwang, Mr. Champa Sangda, and Phuntshog'. Phuntshog, the servant, announces Champa Sangda's arrival to R., who agrees to see him. They again discuss their present work as informants; Champa Sangda then gives an account of his boyhood in Pempo Province, and subsequent career; finally they discuss the Polite Style of speech.

V. drag-shod-kyi ra-ni sab mchog dang rigs-dbang lags
lhan-gnyis-kyi bka'-mol; 'Conversation between the Rani Sahiba and Mr. Rigwang'. Rani Dorji questions R. about his work in London.

Before proceeding to a consideration of the texts that are based on recordings made from a prepared script, something should first be said about the state of the above five texts to account for the frequent emendations (in square brackets). When I compared the texts written out by dpal-'byor phun-tshogs with the original recording from which each had been made, I found that they had been transcribed carelessly: a considerable number of odd words, and some whole sentences, had been omitted; and words and phrases were sometimes in the wrong order. Some of the

mistakes appear in the original rough copy made direct from the recording; others are mistakes in copying, and appear only in the fair copy that was made from the original transcription. It therefore became necessary to edit Phuntshog's texts; and the square brackets indicate the addition to these texts of material that I found to have been omitted.

Phuntshog might reasonably claim extenuating circumstances to account for his carelessness: in the first place the writing down of LT presented something of a problem (pp. 677-80 below); and in the second the transcribing had to be done at high speed, and with as few re-playings as possible. The reason for this haste was that landslides had interfered with the Kalimpong electricity supply; electric power was therefore rationed, and the recording machine could be run off the local supply for only a very few hours each day. Very fortunately for me H.R.H. Prince Peter of Greece and Denmark had a charging-motor of his own in Kalimpong, and he very kindly charged my batteries for me; so that I was partly independent of the local supply; but even so it was a race against time, and some texts did not get beyond the rough-copy stage before I had to leave Kalimpong.

Texts from Scripted Recordings

When suitable examples are not to be had from the texts made from the five unscripted recordings, they are, as a second choice, taken from the texts of scripted recordings. The texts of these recordings are:

- i. Tibetan Sentences (Sir Basil Gould, C.M.G., C.I.E., and Hugh Edward Richardson, Oxford University Press, 1943);
- ii. Tibetan Language Records, Etc. (Sir Basil Gould, C.M.G., C.I.E., Hugh Edward Richardson, O.B.E., and Kazi Dorji Tshering, Kalimpong, 1949);
- iii. Grammar of Colloquial Tibetan (C.A. Bell, C.M.G., C.I.E., Alipore, 1939).

All three recordings were made on wire in Kalimpong, (1950).

Examples from these three sources are acknowledged by 'G. and R.' in the case of 'i' and 'ii', and by 'Bell' in the case of 'iii'. Where R. changed an example from one of these sources in order to adapt it to his own usage, the fact that he did so is also mentioned.

Further texts are provided by a series of scripted sentences prepared by R. and recorded on discs in London at the School of Oriental and African Studies.

'R.'s Autobiography', the text of a recording made on discs in London (1949), was also used, but not as a linguistic text. It was the source for an account of R.'s life before

he came to London. The recording was made from a script written in Classical Tibetan, and therefore provides an example not of LT but of the Reading Style (pp. 14-26).

Difficulties encountered in dealing with the Texts

Considerable difficulties were experienced in dealing with the material provided by the various recordings mentioned in the two preceding sections. In the case of the five texts written down from unscripted recordings the difficulty was one of spelling: LT has no generally accepted spelling; for LT utterances are regularly translated into Classical Tibetan when they are to be written down. Thus, the Tibetan lexicographer, Kaji Dousamdub, says of his dictionary entries: 'Care has been taken to give the Tibetan words as correctly spelt where possible, but where colloquial words had to be used in preference to classical words, - - - no strictly correct spelling could be adhered to'.¹ By colloquial words he means not only LT words but words in the Sikkimese and other Tibetan dialects as well. Similarly Dousamdub's pupil, Hannah: 'Of course it must be remembered that the Colloquial, as such, pays no regard to spelling, but only to its own phonetics. Hence, if one attempts to write Tibetan, one

¹An English-Tibetan Dictionary, Calcutta, 1919, vii.

should spell properly. Therefore, also, if one attempts to write Colloquial, it must always look wrong as regards spelling'.¹ H.E. Richardson, C.I.E., O.B.E., formerly in charge of the Indian Mission, Lhasa, writes, in correspondence: 'It is perhaps not strictly correct to say that utterances in Lhasa Tibetan are written down at all. Tibetans do not write down what they say except for special purposes such as your research and our sentences [Tibetan Sentences, and Tibetan Language Records] (see p. 676 above); he also told me that the only instance that he knew of in which LT was written in Lhasa was in correspondence between H. Harrer (author of "Seven Years in Tibet", London, 1953) and some of the younger Officials.

Attempts have however been made to 'write Colloquial'. Bell was perhaps the first to do so (Grammar, 1st. ed., Chumbi, Tibet, 1905); and not only in the Grammar but also in his English-Tibetan Colloquial Dictionary (Calcutta, 1920) and his Manual of Colloquial Tibetan (Calcutta, 1905) he sometimes gives two spellings for the same form: 'Where the colloquial and the literary form differ the latter is given in brackets in the Tibetan character' (Grammar, 1), and 'The Tibetan words and syllables in brackets are those used in

¹ A Grammar of the Tibetan Language, Calcutta, 1912, 241-2.

the simple form of book language. Where the pronunciation of the literary and spoken form of a word is the same, the literary form alone is given, since the sole object of entering the spoken form is to show the exact pronunciation of the word,' (Grammar, vii-viii). Every form in brackets is therefore preceded by a phonetic spelling in the Tibetan script; but it is not clear whether Bell himself, or his Tibetan and other helpers, supplied this phonetic spelling. Certainly his phonetic spellings are in the main consistent with those used later by Hannah (Grammar), Gould and Richardson (Sentences; Records; Tibetan Verb Roots, Kalimpong, 1949; Tibetan Word Book, Oxford University Press, 1943), George N. Roerich and Tse-trung Lopsang Phuntshok (Textbook of Colloquial Tibetan, Government of West Bengal, 1957), and dpal-'byor phun-tshog, who wrote out the texts of my unscripted recordings from play-back. dpal-'byor phun-tshog was left free to spell as he pleased; and I had explained to him that I was willing to accept the translation of all the recorded utterances into Classical Tibetan, if that was the only form in which he felt that they might be written down. In fact, where he departs from Classical spelling the forms that he gives are phonetic spellings often identical with those which appear in Bell; e.g.

<u>'das</u>	de:	Class. <u>'di-ru</u>	'here'
<u>gsol-ja'i</u>	sə:dʒa:	<u>gsol-ja-la</u>	'for tea'
<u>bcar-ra-yin</u>	tʃarejɪ	<u>bcar-ba</u> - -	'called on'
<u>bsil-ra-yin-pa'dra</u>	sirejimbedra	<u>bsil-ba</u> - -	'must have [got cold']
<u>slab-dgra</u>	lɔbdre	<u>slob-grwa</u>	'school'

In the case of recordings made from written or printed texts the spelling of the text presents no problem; for, whether valid for LT or not, it was accepted by R. as a basis for making the recording. There the problem is one of pronunciation. It is seldom, if ever, that a Tibetan is required to read texts in anything but Classical Tibetan; and he therefore finds it difficult not to use Reading-Style pronunciations in reading from any written or printed text, even when the vocabulary and orthography of the text are clearly not Classical.¹ R. became conscious of this difficulty, but was not always able to overcome it, particularly since the Reading Style carries with it all the prestige of literacy and familiarity with the Classical language. Pronunciations such as the following have been observed in recordings made from written or printed texts:

¹For Reading Style see pp. 14-26.

jø:bəre	(LT jøere)	<u>yod-pa-red</u>	'there are' (G. and R.);
dir	(" de:)	'dir/'di-ru	'here' (G. and R.);
dø:gijø:	(" de:gijø:)	<u>sdod-kyi-yod</u>	'- - - do you live?' [(G. and R.).] ¹

Where necessary, attention is drawn to any such Reading-Style pronunciations by footnotes.

¹ Cf. also Yu Dawchyuan and Dr. Jaw Yuanrenn (Y.R. Chao), Love-songs of the Sixth Dalai Lama, Peiping, 1930, 198: "The pronunciation recorded in this book does not represent the pronunciation used by Mr. blo-bzang-sang-rgyas in his ordinary speech. It is the habit of Tibetans - - - to **pronounce** a word in one way when the word is used in ordinary speech, and in another way when the word is read from a book. - - - in the following table I give the transcription of those words as they are pronounced in ordinary speech." Even though the Love-songs were not composed in Classical Tibetan, Yu and Jaw's informants thought it appropriate to use the Reading-Style pronunciation in reading them.

Tone Two,

/ - - \ - \ -
ja: tʃhiβu: nã:s, juro: nã: (the lexical item s is
 voiceless, and therefore
 non-pitch-bearing)

yar chibs-bsgyur gnang-ze, zhu[-rog gnang].

'Please invite him to come up.'

Tone Two,

- - \ -
tri:bu dundy:, dril-bu brdung-dus, 'When the bell rings',

- - - - -
le:sə khy:lə thandə tshakba:s tʃi ndindre: mɛ: de,
lhas-sa khul-la da-lta tshag-par-se [cig 'di-'dras] med de'i,
 'We have not at present got any letterpress like this in
 the Lhasa district, but - - -.'

- - -
dinzulə phembə rəbu tʃhe, --- tʃhe:n,
de-'tsho-la phan-pa ra-po [byas], byas-ni,
 'Having --- having done it sort-of for their sake,'

\ -
le:ʃi, byas-bzhin, 'Therefore,'

ramə lu: ʃetas ndre:dʒe,

ra-ma lug sha-stag cig bdres-byas,

'When the sheep got all mixed up with the goats.'

Four Pitch Marks

Tone One,

khadze: tringœne, ga-tshad springs-dgos-yod-na'i

'However many one has distributed.'

le:səne ɟəŋgɛ: mi sa:bə le:ɟənəme:,¹

lhas-sa-nas yong-mkhan mi gsar-pa bslebs-yod-na-med,

'--- Whether or not anyone has newly arrived from Lhasa,'

Emphatic

212121122. Verb + Particle Word, or Verb Word, not Prominent

Tone One,

na mi: taga, drugejĩ:. nga mig lta-ga, 'gro-gi-yin,

'I shall go and see.'

¹ **jōngE:** is a Reading Style pronunciation (LT jɔːŋɛː).

the nime khaʃɛ: sɔ̃:ni,

da nyi-ma kha-shas song-nas,

'Now, in a few days' time,'

mi tʃik kalɛ: pü:lə cəmbəjinzä,

[mi cig] ka-lon sbug-la skyon-pa-yin-tsang,

'Since it was in Kalimpong that some man printed it,'

Tone Two,

tʃhɛ:dzä:, lɛ:sə rangɪ cɛ: ---

byas-tsang, lhas-sa rang-gi skad ---

'And so the speech of Lhasa itself ---

tʃhø: tʃhɛga, ndrugɛʃi:. chos byed-ga, 'gro-gi-yin.

'I am going there in order to study religion.' (G. and R.,
emended).

dindre: ryɔ̃ tʃhɛ:ne,

['di-'dras ra-po byas-nas,]

'Having done that sort of thing,'

so: jy: lə so: kənz, tʃhɛ:, zog-yul-la zog dkon-ze, byas,
 ' - - - that "in the land of the goods the goods are scarce". '


par gā: jəpɛ:s, di tʃhidy: khā:n,
 par-khang yod-pas[-se]. de by[ed-dus sgang-ni]
 '"Have you got a printing works?' When they say this, '

Sentence-final Clause

2121212111. Intonation One

a. Sentence-final Fall


i. One pitch Mark

Tone One, 

tri:bu dundɔ:, jā: ja: tsho:.
 drill-bu brdung-dus, [yang] yar tshogs (Vb. Word). (Indicative Sentence).

'And, when the bell rings, all assemble.'

Cf. also, from Indicative Sentences, nā:, gnang; thə:, thon;
 tʃhɪ:, phyin; and from Imperative Sentences, ʃo:, shog;
 tʃhɛ:, phye; phy:, phul.

Tone Two, 

la re: la red. (Vb. Word). 'Yes, it is.'

Cf. also, from Indicative Sentences, du:, 'dug; tʃhɛ:, byas; tʃhɛ:, byung; and from Imperative Sentences, ʃy:, zhus; gju:, rgyugs; gɟɟp, rgyab.

The above examples are all of Verb Words; the following are of Particle Words (red, etc.):
de-ni bkod-byas, lo mang-po la las-kyi-red-pa.
 (Vb.: las [sic; ?lad]; Part.: kyi, red, pa); 'then, when they have carved it, it will get indistinct over the years, will it not?'

ii. _____

la re:. lags red. 'Yes, it will.'

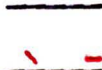
Cf. also yod, vin, byung, med, which appear in the recorded material, and 'dug, min, yong, 'dra, song, which do not.

b. Sentence-final Low and Level Pitch

Two Pitch Marks

Tone One, _____

Cf. also nā:dʒū:, gnang-byung; nā:sū:, gnang-song; tʃhɛjɛ, phye-yod; sɔŋdu, gsungs-'dug; naŋa, gnang-nga; naŋgo, gnang-dgos; nā:jū, gnang-yong, naŋga, gnang-ga; phe:bɛ:, phebs-pas; phe:ba:, phebs-pa; luɣʃi, blug-shig; naŋdo, gnang-do; ʃi:n tã, shes dang; te:da, ster-da; naŋgi, gnang-gis.


Tone Two, 

Cf. also: dʒo:dʒũ, 'byor-byung; lā:sũ, langs-song; tʃhə:jə,
byas-yod; phɣbdu, babs-'dug; khəpũ, go-nyung; sə:ba:,
bzos-pa; ʃugo, zhu-dgos; ʃe:jũ, bzhes-yong; ʃu:ga, bzhugs-ka;
ɣbe:, rgyab-pas; re:nə, red-na; jə:nə, yod-na; jĩ:nə, vin-na;
mɛ: trə, mad 'gro; sɔʃi, bzo-shig; drədo, 'gro-do; tri: tã,
driɣ dang; sigi, zer-gyis; jə:re, yod-pa-red yog-red/yod-red.

All the above section-b examples are of Vb. + Part.

Words; the following disyllabic Part. Word has also been
 noted as having the same pitch pattern as the Tone-Two:
 examples: re:nə, red-na.

Three Pitch Marks

Tone One, 


Cf. also other examples, that, like mthong-ma-nyung, are
 Negative forms corresponding to certain of the Affirmative
 forms given among the Two-Pitch-Mark Examples: ʃi:mədzũ:,
shes-ma-byung; tʃhə:masũ:, mchod-ma-song; tã:mindu,
btang-mi-'dug; nã:mejũ, gnang-mi-yong; cf. also Interrogative
 forms in pas/gas/ngas (General-Interrogative) corresponding
 to certain Indicative forms given as Two-Pitch-Mark examples:
nanɣɣɣɛ:, gnang-byung-ngas; nã:suɣɛ:, gnang-song-ngas;
kʃe:jəpɛ:, kh yer-yod-pas; le:duge:, bslebs-'dug-gas;
thɛ:punɛ:, thad-myong-ngas; nã:jəɣɛ:, gnang-yong-ngas;

phe:gibe:, phebs-kyi-pas; cf. also the following forms in pa/ba/ga/nga/ra (Past Particle): phe:bere, phebs-pa-red; terejə, bster-ra-yod; terəndu, bster-ra-'dug; tənejɪ:, btang-ba-yin; cf. also: nā:joŋa, gnang-yong-nga; nəŋore, gnang-go-red; ɭɣbɔɣə, bslabs-dgos-yod; phebjə:re, phebs-yod-pa-red.

Tone Two,
 ' - -


Cf. also the Negative forms: dʒo:medʒũ:, 'byor-ma-byung; dʒo:masũ, 'byor-ma-song; tʃhe:mejũ, byas-mi-yong; droməŋũ, 'gro-ma-myong; and the Interrogative forms: dʒo:duge:, 'byor-'dug-gas; dʒəpɯŋɛ:, 'gro-myong-ngas; dʒo:suŋɛ:, 'byor-song-ngas; sə:ɣuŋɛ:, bzos-yong-ngas; dʒa:jəβɛ:, 'jag-yod-pas; jə:riβɛ:, yod-pa-red-pas; tʃhigibe:, byed-kyi-pas; cf. also the Past-Particle forms: tʃhɯŋbere, byung-pa-red; jimbere, vin-pa-red; dɛ:bejɪ, bsdad-pa-yin; mɛ:bejɪ:, med-pa-yin; dʒorejə, 'byor-ra-yod; ʃɤbendu, rgyab-pa-'dug; jə:mare, yod-pa-ma-red/yog-ma-red; cf. also: sə:ɣəŋa, bzos-yong-nga; ʃy:pəŋa, zhus-myong-nga; ʃugɣə:, zhu-go-yod; tʃheqore, byed-go-red; jimbədra, vin-pa-'dra; ɭɣbjə:re, rgyab-yod-pa-red.

Four Pitch Marks

Tone One, 

Cf. also: l̥x̥bg̥o̥y̥ə̥ne, bsl̥abs-go-yod-na; and cf. the following Interrogative forms corresponding to the Declarative Negative forms given under Three Pitch Marks:

t̥ā:m̥ədz̥u̯ɛ:, btang-ma-byung-ngas; t̥ā:mas̥u̯ɛ:,
btang-ma-song-ngas; t̥ā:mi̯ndu̯ɛ:, btang-mi-'dug-gas;
n̥ā:me̯ju̯ɛ:, gnang-mi-yong-ngas; cf. also: tr̥ɛ:ber̥i t̥ā,
sprad-pa-red dang; k̥əre̯jimbe:, skol-ra-yin-pas; thubemindu,
thub-pa-mi-'dug; na̯nej̯indro, gnang-nga-yin-'gro.

Tone Two, 

Cf. also: t̥ʃh̥eg̥o̯y̯ə̯ne, byed-dgos-yod-na; cf. also the Interrogative forms corresponding to the Declarative Negative forms given under Three Pitch Marks: d̥z̥o:m̥ədz̥u̯ɛ:,
'byor-ma-byung-ngas; d̥z̥o:mas̥u̯ɛ:, 'byor-ma-song-ngas;
ʃ̥bm̥indu̯ɛ:, rgyab-mi-'dug-gas; d̥z̥o:me̯ju̯ɛ:, 'byor-mi-yong-ngas;
ʃ̥o:mar̥i̯ɕ̥ɛ:, yod/yog-ma-red-pas; t̥ʃh̥ɛ:b̥ere t̥ā, byas-pa-red dang;
t̥ʃh̥eg̥ore t̥ā, byed-go-red dang; ʃ̥be̯jimbe:, rgyab-pa-yin-pas;
ʃ̥o̯nem̥indu, yong-nga-mi-'dug; s̥ə:b̥ej̯indro, bzos-pa-yin-'gro.

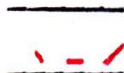
The Four-Pitch-Mark 1W and 2W patterns are appropriate to Words containing the Special-Interrogative Particle na, and to the Alternative-Interrogative Particle na in the

second-alternative Clause (for the Alternative-Interrogative Particle na in the first-alternative Clause see 212121111, a, ii).

2121212112. Intonation Two


i. Sentence-final Rise in Pitch

Three Pitch Marks


Tone Two, 

Cf. also: jə:benə, yod-pa-no.

Four Pitch Marks

Tone One, 

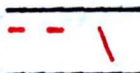
Cf. also: taŋeriba:, btang-nga-red-pa.

Tone Two, 

Cf. also jə:mariba:, yog-ma-red-pa [sic; yod-pa-ma-red-pa];
jə:mare tã:, yog-ma-red dang [sic; yod-pa-ma-red dang];
jə:jimbəno, yod-pa-yin-pa-no; ʃəpʃəbəno, rgyab-yod-pa-no.

2121212121. Intonation One

2a. Fall in Pitch

i. Tone One, 

Cf. also; ʃingime:, shes-kyi-mad; tʃhigire:, phye-gi-red;
tre:gəjɪ:, sprad-kyi-yin; thungyɣə:, 'thung-gi-yod;
thu:gəme:, thub-kyi-man.

Tone Two,
 - - \

Cf. also: tʃhigijə:, byed-kyi-yod; drigire:, bsgrigs-kyi-red;
tʃhigəjɪ:, byed-kyi-yin; sʌgəme:, za-gi-min; ʃʌ:gəme:,
rgyag-gi-mad.

ii.

Four Pitch Marks

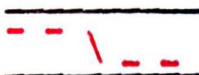
Tone One,
 - - \ -

Cf. also: te:gijɪ:nə, ster-gyi-yin-na; phe:gijimba:,
phebs-kyi-yin-pa; tʃhy:gyəʃə:ba:, mchod-kyi-yod-pa; pho:gme:dro,
phog-gi-mad-'gro; thu:gijindro, thub-kyi-yin-'gro;
ʃingimendro, shes-kyi-man-'gro; naŋgiʃə:re, gnang-gi-yod-pa-red;
taŋgimare, btang-gi-ma-red; naŋgimindu, gnang-gi-mi-'dug;
ʃingigʷajɪ:, shes-kyi-a-yin; naŋgiʷajə:, gnang-gi-a-yod;
naŋgiʃə:dʌ:, gnang-gi-yod-dang.

Tone Two,
 - - \ -

Cf. also ʃʌ:gəjɪ:nə, rgyab-kyi-yin-na; dʒʌ:gəjimba:,
'jag-gi-yin-pa; tʃhigijə:ba:, byed-kyi-yod-pa; drugmədro,
'gro-gi-mad-gro; de:gəjindro, bsdad-kyi-yin-'gro;
naŋgimendro, na-gi-man-'gro; ʃu:gijə:re, bzhugs-kyi-yod-pa-red;
drigimare, 'grig-gi-ma-red; peŋgimindu, nyan-gyi-mi-'dug;
(par) rgyab-kyi-a-yin, ʃʌ:giʷajɪ:, de:giʷajə:, bsdad-kyi-a-yod;
sigijə: tʌ, zer-gyi-yod dang.

Five Pitch Marks

Tone One, 


the:gəməbədra, thad-kyi-man-pa-'dra; nəŋgiʃə:bədra,
gnang-gi-yod-pa-'dra; nəŋgime:bədra, gnang-gi-mad-pa-'dra;
ʃiŋgiʃə:məre, shes-kyi-yod-pa-ma-red.

Tone Two, 

Cf. also: phəbgiməbədra, babs-kyi-man-pa-'dra; də:gyʉə:bədra,
sdod-kyi-yod-pa-'dra; də:gəme:bədra, sdod-kyi-mad-pa-'dra;
də:gəʃə:məre, bsdad-kyi-yod-pa-ma-red; siɣimariba,
zer-gyi-ma-red-pa (for this last type of example Intonation
 Two is usual); drugɪʔəʃi:nə, 'gro-gi-a-yin-na.

2b. Level Pitch

1. Four Pitch Marks


Tone One, 

Cf. also: thu:geriʃə:, thub-kyi-red-pas; chiŋgiʃəʃə:,
mkhyen-gyi-yod-pas; thunɣəjimbe:, 'thung-gi-yin-pas;
chiŋgiduga, mkhyen-gyi-'dug-ga.

Tone Two, 

Cf. also ʃegime:bə:, bzhes-kyi-med-pas; nəɣinduge:,
na-gi-'dug-gas; dəŋgiriʃə:, ldang-gi-red-pas; junɣəjimbe:,
yong-gi-yin-pas; ʃa:giduga, rgyag-gi-'dug-ga.

11. Five Pitch Marks

Tone One, 

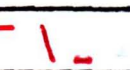
Cf. also: nʌŋgiminduge:, gnang-gi-mi-'dug-gas;
lɿbgiminduga, bslabs-kyi-mi-'dug-ga.

Tone Two, 


Cf. also: (ha) khugiminduga, (ha) go-gi-mi-'dug-ga.

3.

Three Pitch Marks

Tone One, 

Cf. also: thu:ʔajũ:, thub-a-yong.


Tone Two, 

Cf. also: ʃa:ʔaje:, bzhag-a-yod.


5.

a. Word-final Fall in pitch.

11. Tone-Two only

Two Pitch Marks, 

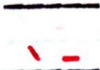
Cf. also: riβe:, red-pas; jəβe:, yod-pas; duge:, 'dug-gas;
jəŋe:, yong-ngas; tʃhuŋe:, byung-ngas; mɛ:be:, mad-pas/med-pas
mɛmbe:, min-pas/man-pas; jəŋa, yong-nga; tʃhuŋa, byung-nga.

Three Pitch Marks, 


Cf. also minduga, mi-'dug-ga; maripe:, ma-red-pas;
məɖʒuŋe:, ma-byung-ngas; məɖʒuŋa, ma-byung-nga; mejɔŋe:,
mi-yong-ngas; mejɔŋa, mi-yong-nga.

In one respect, i.e. the fall in pitch on the final Syllable
 (pas/gas/ngas, pa/ga/nga), the above pattern accords with
 those given above (Two Pitch Marks) for duge:, 'dug-gas,
 and duga, 'dug-ga; for e.g. kjiginduge:, skye-gi-'dug-gas;
chingiduga, mkhyen-gyi-'dug-ga (2b, i); and for
naŋgiminduge:, gnang-gi-mi-'dug-gas (2b, ii).

b. Word-initial Fall in Pitch (Tone Two only)

i. Low Fall, 

Cf. also mare, ma-red (but for mejɔ:, mi-yong, see
 2121212111, a, ii).


ii. High Fall, 

Cf. also: ʔaje:, a-yod; ʔajũ:, a-yong.

Three Pitch Marks

Cf. also: ʔaje:ne, a-yod-na.

2121212122. Intonation Two


a. 

Cf. also: tʃhũ:, byung.


b.

ii.

Four Pitch Marks

Tone One, 

Cf. also: **sun**giduga, gsung-gi-'dug-ga.

Tone Two, 

Cf. also **na**giduga, na-gi-'dug-ga.

iii.

Five Pitch Marks

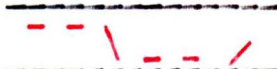
Tone One, 

Cf. also: **thung**iminduga, 'thung-gi-mi-'dug-ga; **tʃhʌ:gimariba:**,
chag-gi-ma-red-pa; **ching**ijø:bəno, mkhyen-gyi-yod-pa-no;
phe:gijø:ri tã, phebs-kyi-yod-pa-red dang; **thub**gimari tã:,
thub-kyi-ma-red dang; **phe:gijimbəno**, phebs-kyi-yin-pa-no.

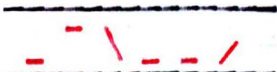
Tone Two, 

Cf. also: **drugy**maribə:, 'gro-gi-ma-red-pa; **bʌ:giminduga**,
'u-bar-gyi-mi-'dug-ga; **sig**ijø:bəno, zer-gyi-yod-pa-no;
də:gijø:ri tã:, bsdad-kyi-yod-pa-red dang; **jung**gimari tã:,
yong-gi-ma-red dang; **drugy**jimbəno, 'gro-gi-yin-pa-no.

Six Pitch Marks

Tone One, 

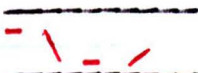
Cf. also: lɿbgijɔ: jimbəno, bslabs-kyi-yod-pa-yin-pa-no;
nəŋgijɔ: mari tã:, gnang-gi-yod-pa-ma-red dang.

Tone Two, 


Cf. also: ɣʌ: gijɔ: mari tã:, rgyab-kyi-yod-pa-ma-red dang;
sigijɔ: mariba:, zer-gyi-yod-pa-ma-red-pa.

d.

Four Pitch Marks

Tone One, 

Cf. also phe: jo: ri tã:, phebs-yod-pa-red dang.

Tone Two, 

Cf. also: ɣɿbjɔ: riba:, rgyab-yod-pa-red-pa.

Five Pitch Marks

Tone One, 

Cf. also trũ: jo: mari tã:, 'khrung-yod-pa-ma-red dang.

Tone Two 

Cf. also: ɣu: jo: mari tã:, bzhugs-yod-pa-ma-red dang.

2121212221. Intonation One

One Pitch Mark

Tone One,
 thaga:s kamø: r̥bu j̥y: tʃhə:da-ga-'i-se bka'-mol ra-po [zh̥us mchog]. (Indicative Sentence).

'Must have a spontaneous sort-of conversation.'

Cf. also, from Indicative Sentences: tʃhĩ:, phyin; pi:, pis.Tone Two,
 di pha: kʃe:u:'di phar phyer rgyugs. (Imperative Sentence).

'Take this away!' (G. and R.).

Cf. also, from Indicative Sentences: re, red; du, 'dug; jĩ,
vin; jø, yod; tʃhɛ/e, byas; sa, se; jʃ, yong.The same pitch pattern has been noted for the Particle
Words re, red, and jø, yod.

Two Pitch Marks

Tone One,
 nā:jũ, gnang-yong; samgi, bsam-gvis.

Tone Two,
 - -

tsa:n mindu. tsang-ni mi-'dug. 'There are none whatever.'

Cf. 2121212121, 5b, i.

tha mige: phøbe: lybdru: khadze: ts duga.

da mi-gas bod-pa'i slab-phrug ga-tshad tsa 'dug-ga.

'Now about how many Tibetan schoolboys are there down there?'

Cf. p.229.

Cf. also: jI:nə, vin-na (Special Interrogative); tʃhū:ʃa,

byung-shag; riʃe:, red-pas; jøʃe:s, yod-pas-zer; ri tã,

red dang; dʒa:go, 'jags[-dgos]; ʃe:jū, bzher-yong; jimba:,

vin-pa; dʒa:ga, 'jags-ka; dʒa:ba:, 'jags-pa.

Three Pitch Marks

Tone One,
 - -

Cf. also: səŋere, gsung-nga-red; tʃho:gyre:, chog-gi-red.

Tone Two,
 - -

Cf. also jimbere, vin-pa-red; sigidu, [zer-gyi-'dug];

jimbədra, vin-pa-'dra; tʃhiɣijə:, byed-kyi-yod; gugere,

dgos-kyi-red; gojime:, dgos-yod-med; go:ʋə:nə, dgos-yod-na;

dʒa:gore, sbyar-go-red; tʃhū:mindu, byung-mi-'dug.

Four Pitch Marks

Tone One,
 - - - -

Cf. also the:gejə:nə, thad-kyi-yod-na; chiymare, 'khe1-gyi-ma-red; thu:gymindu, thub-kyi-mi-'dug, naŋgiduga, gnang-gi-'dug-ga (Alternative Interrogative).

Tone Two,
 - - - -

Cf. also: sigidu:nə, zer-gyi-'dug-na; sereji:nə, za-[ra-vin-na].
gujme: tro, dgos-kyi-mad [gro]; figije:ba:, bzhes-kyi-yod-pa.

Five Pitch Marks

Tone One,
 - - - - -

Cf. also: fiŋgio:mare, shes-kyi-yod-ma-red.

2121212222. Intonation Two

b. Two Pitch Marks

 - /

 ^ - \ - - - /
jinzā:, 'Audzi duga.

[vin]-tsang, a'u-rtse 'dug-ka.

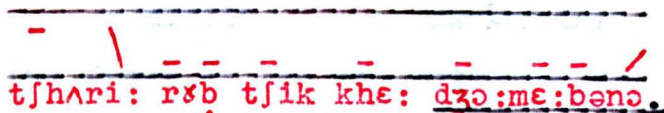
'There would be enough, as it is, would there not?'

example:

c. Four Pitch Marks



Tone Two



phyag-ris ra-po [cig] gas 'byor-mad-pa-no.

'You have not received a letter or anything?'

Cf. also: drugyduga, 'gro-gi-'dug-ga; drugyriba:,
'gro-gi-red-pa.

2121215. Verb + Nominalizing-Particle (+ Nominal-Particle)
Word

21212151. Non-Emphatic Intonation

212121512. Group-Two Particle

Two Pitch Marks

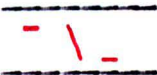


Cf. also: nʌŋzi:, gnang-rtsis; nʌ:my:, gnang-mus; ʃɛ:dʒ:,
bshad-bltang [sic; -bstang]; phe:pɛ:, phebs-nyan;
kjɔ:rɔ:, skyon-roq; tʃhɔ:dɔ:, mchod-dog (kha-po); thɔŋde,
mthong-ta; tɛŋgju, bstan-rgyu; tha:sɛ, thar-sa (only the
first of the two patterns applies to these last three
examples).

Tone Two 

Cf. also: sudzi:, bzo-rtsis; dʒʌ:my:, 'jags-mus; jɔŋdʌ:, yong-bstangs; seŋɛ:, zer-nyan; juro:, zhu-rog; ʃe:do:, bzhes-tog (kha-po); tʃhidəp, byed-thabs; dɛ:lɔ:, bsdad-long; khəde, go-ta; ʃʌ:ʃu, rgyab-rgyu; drikse, bsgrigs-sa (only the first of the two patterns applies to these last three examples).

Three Pitch Marks


Tone One 

nanɬangi, gnang-bstang[-gi];
21212152. Emphatic Intonation

a. Prominent-Word Patterns

i.


Two Pitch Marks

Tone One 

Cf. also: tʌ:ja:, btang-yag

b. Non-Prominent Word Patterns

Two Pitch Marks

Tone One 

nanɬʌ:, gnang-bstang; təkbe:, tog[-pas]; nanŋ, gnang-nga;

Tone Two

ʃuŋɛ:, zhu-nyan; dʒʌ:dy:, 'jags-dus; ʃuŋgju, yong-rgyu;
tʃhiɿy: byed-rgyu'i.

APPENDIX IV

zP VERBS: QUANTITY

Short-Piece (sP) VerbsI. y-Piece (yP)A. Close-Piece (cP)

'grig be all right (irregular; p. 342): **drɿ**(2)¹

(b)sgrig fix, join together (irregular; p. 342): **drɿ**(2)

shi die: **ɬɿ**; bzi be drunk: **sɿ**(2)²

B. Close/Open-Piece (c/oP)

zer say: **se/sɿ**(2)³ (irregular: p. 348); rtse play:

tse/tsɿ; phye open: **tʃhe/tʃhɿ**; byed do: **tʃhe/tʃhɿ**(2)

(irregular; p. 399)

II. w-Piece (wP)A. Close-Piece (cP)B. Close/Open-Piece (c/oP)

dgo/dgos must: **go/gɔ**(2); 'gro go: **dro/drɔ**(2)

(irregular; p. 408); dro warm: **tro/trɔ**(2)²; go

hear: **kho/khɔ**(2); byo transfer (by pouring): **tʃho**(2)²;

¹The figure '2' indicates a Tone-2 Verb; all others are Tone-1.

²Possibly a s/1 Verb (p. 398).

³The function of the oblique stroke is to separate Close-Piece (cP) and Open-Piece (oP) forms, the cP being given first.

It is possible that this verb should be classified as **drɿ** (p. 342); but I suspect that the orthography is responsible for occurrences of this verb where, in other contexts, it has been used.

smyo mad: no (literary?); skyo be depressed:

kjo; rko hoe: ko

III. a-Piece (aP) (Necessarily also c/oP)

tsha hot: tsha; na painful, ill: na/na (2); dga'

happy: ga/ga (2)

Short-or-Long-Piece Verbs

I. y-Piece (yP)

A. Close-Piece (cP)

B. Close/Open-Piece (c/oP)

(b)skye(s) be born: kje^{/kju/} kje:; bzhes drink: ʃt,
ʃe: (2)¹

II. w-Piece (wP)

A. Close-Piece (cP)

zhu(s) offer: ʃa, ʃy: (2); bkru(s), 'khrud wash:
trə, try:; trə, try:; ngu(s) cry: na, ny: (2);
rku(s) steal: ka, ky:; gzhu(s) lash: ʃa, ʃy: (2);
'du(s) collect: da, dy: (2); sdud collect: da, dy:
(2); bshu(s) peel: ʃa, ʃy:; bsu(s) greet: sa, sy:;
bsru(b)(s) churn: sa, sy:

B. Close/Open-Piece (c/oP)

nyo(s) buy: no/no, no: (2); rmo(s) plough: mo, mo:

¹The form ʃe which has also been observed, I believe to be
It is possible that this Verb should be classified as dP
(ʃe:); but I suspect that the orthography is responsible
for occurrences of this form where, on other occasions, ʃt
has been used.

(literary?); 'tshod/btos cook: tso, tsø: (less commonly tsho, tshø:); bzo(s) make: so/sø, sø: (2); (b)sko(s) appoint: ko, kø:; (b)rngod roast: ɲo, ɲø:; 'tsho(s) graze: tsho, tshø:; (b)sro(s) warm: tro, trø:; gso(s) feed: so, sø:; bsho(s) lie with: ʃo, ʃø:

III. ə-Piece (əP) (necessarily c/oP)

(b)lta(s) look: ta/tʌ, tɛ:; (b)za('), bzas eat: sa/sʌ, se: (2); (b)rngə(s) reap: ɲa/ɲʌ, ɲɛ:; lha(s) plait: la/lʌ, lɛ:; la/lʌ, lɛ:

dP=VERB SYLLABLES

I. y-Piece (yP)

A. Close-Piece (cP)

dris ask: tʃi: (a); bris write: tʃi: (2); pis ('bud) take off, doff: pi:; bud fall off: phi: (2); phubs pitch: pi: (also phu:); rnyed find: ni:;¹ 'khrid lead: tʃi:; brtsis count: tsi:

B. Close/Open-Piece (c/oP)

red is: re:/rʌ (2); rtsed play: tse:; phebs come:

phe: (p. 347); sleb arrive: le: (p. 347); zhed

¹The form **pe:**, which has also been observed, I believe to be a spelling pronunciation (Bell, p.135).

fear: je: (2); bried forget: dʒe: (2)¹; nves
 beat: ne: (2); dgves happy: je: (2); mnyed
 tan: ne:; thebs seize: the:; ² 'bebs let fall:
be: (2); ² bzed hold out: se: (2); gzed hit:
se: (2); ries change: dʒe: (2); ³ bgres grow old:
dre: (2); 'gves separate: je: (also che:)
 (2); 'ded pursue: de: (2); (b)skyed give birth to:
ce:/ci:

II. w-Piece (wP)

A. Close-Piece (cP)

brgyus string together: gyjy: (2); 'jus grasp:
dzy: (2); nus dare: ny: (2) (nus-song only);
bus blow: phy: (2)

B. Close/Open-Piece (c/oP)

mchodse eat/drink: tʃhə:/tʃhy:; 'dod want: də:/dy:
 (2); sprod give: trə:/try: (more commonly trə:/tre:,

¹ The form dʒigɪdu: that has also been recorded would require this verb to be classified as zP; but this form may result from confusion with rje(s).

² Also recorded as b-Piece: thɣp/b; phɣp/b.

³ The forms dʒigɪdu: and dʒɛʃɪ (rje-gi-'dug, rje-shig) that have also been recorded would require this verb to be classified as zP; but these forms may result from confusion with rje(s).

All the verbs listed above were

In addition a number of examples of

nW; see sprad); yod have: **je:** (2) (irregular; p. 360); sdod live: **de:** (2) (more commonly **de:/de:**, nW; see bsdad); bros flee: **phø:** (also **trø:**) (2); gnod bewitch: **nø:**; 'phrod be delivered: **trø:**; bod name: **phø:** (2); sbos swell up: **bø:** (2); thos hear: **thø:**; lhod loosen: **lø:**; 'os be suitable: **ø:** (2); bgod distribute: **gø:** (2); dgod laugh: **gø:** (2) (?literary; cf. **gjer/gje:**); 'gos infect: **gø:** (2); 'gyod repent of: **gje:** (2) spos move: **pø:**; 'phos move: **phø:**

III. e-Piece (eP) (necessarily also c/oP)

gas split: **kje:/kje:** (2); rgas get old: **je:/je:** (2); bshad explain: **je:/je:**; sprad give: **tre:/tre:**; byas do: **tjhe:** (2) (irregular; p. 399); thad/s go: **the:/the:**; bsdad live/stay: **de:/de:** (2) (cf. **dø:**); mad/med have not: **me:/me:** (2); lus leave behind: **le:** (2); gnas dwell: **ne:/ne:** (?literary) 'phrad meet with: **tre:**; btsas be born: **tse:/tse:**; chad snap: **tjhe:/tjhe:**; bcad cut: **tje:/tje:**; bsad **se:/se:** (less commonly **sø:** gsod); mdzad make: **ze:/ze:** (2) (?literary); brtses love: **tse:/tse:**; shad comb: **je:/je:** (?literary)

All the verbs listed above were established as dP.

In addition a number of examples of other verbs were

recorded in phonetic forms that are consistent with being dP (pp. 318-35); and without further examination it is impossible to decide whether they are in fact dP or rP (p. 345):

yP: dbril overturn: **ri:**; ril be overturned: **ri:** (2);
sgril roll: **dri:** (2); mnyel get tired: **ne:**;
'brel combine: **be:/dre:** (2); 'gyel fall down:
gje: (2); 'phel spread: **phe:**; spel spread: **pe:**;
bkel spin: **ce:**; gzil [translation not known]:
si: (2)

wP: 'dul tame: **dy:** (2); dkrol unfasten: **trø:**;
grol be unfastened: **trø:** (2); 'tshol look for:
tsø: or **tshø:** (but more commonly **tse:/tse:** or
tshe:/tshe:, nW)

əP: nyal sleep: **ne:/ne:** (2); bshal purge: **ʃe:/ʃe:**;
'gal transgress: **gje:** (2); bkal load:
kje:/kje: load: (')bral separate: **trø:/trø:** (2);
'jal pay (tax): **dʒe:** (2); ral get torn: **re:/re:**
 (2); dbral tear: **re:/re:**; bkrāl comment on:
trø:; 'phral separate: **trø:**; (')khal spin:
che:/che:; rgal cross: **gje:/gje:** (2); bsnyal
 lay down: **ne:.**

Syllable-final l in the orthography is generally a reliable indication that the syllable in question is rP; it is

APPENDIX V

eP VERBS: $\bar{r}P$, $r/\bar{r}P$

(All Verbs that have no Imperative form must be \bar{r} , and have therefore been excluded from this list)

I. z-Piece (zP) ($\bar{r}P$: 1; \bar{r}/rP : 3)

$\bar{r}P$: ga (2) dga¹ be happy

\bar{r}/rP : ta/te:, tø: lta/bltas, ltos look;² sa/se:,
so: (2) za/bzas, zo eat; na/ne:, nø: (also na)
 now

II. g-Piece (gP) ($\bar{r}P$: 4; \bar{r}/rP : 13)

$\bar{r}P$: dza: (2) (bzhugs-gdan) 'jag sit down; ja: (2)
rgyag/b shut, etc; na: mngags dispatch.

The following verb has been observed only in a form that is consistent with either g or r; but since the spelling -g(s) is usually a reliable indication of a potential form in -a:g(e), which is a g criterion, it has been

provisionally classified as gP: ra: (2) rag

(occasionally, also reg) get

¹ Tone-2-Word Verbs are indicated by the figure '2'; all other Verbs are Tone-1-Word. The phonetic form given in the $\bar{r}P$ sections is appropriate to the Verb Word, whether Imperative or non-Imperative; e.g. 'jag: (i) Imperative bzhugs-gdan 'jag (dza:) do sit down; (ii) non-Imperative bzhugs-gdan 'jag (dza:) 'jag-ga-yin she was staying.

² Of the two phonetic forms separated by comma the first is $\bar{r}P$, non-Imperative, and Verb-Word, while the second is rP , Imperative, and also Verb-Word. Where alternative rP forms are given, the first seems to be the more usual.

\bar{r}/rP : ja: , jo: (also ja:)⁽²⁾ bzhag, zhog/bzhag put;
 tra: , tra: (also tro:) sreg, sregs toast, burn;
 ka: , ka: (also ko:) bkag, khogs hinder; la: ,
 la: (also lo:) rlags/glags, rlog/glogs destroy;
 ja: , jo: (also ja:) bshags, gshog split; sa: ,
 so: (also sa:) bsag, sog heap up; za: , zo:
(also za:) (2) 'dzeg, 'dzegs climb;¹ tja: , tjo:
(also tja:) bcags, chogs break.

As in the case of ra: reg, at $\bar{r}P$ above,
the following have also been provisionally
classified as gP : kja: , $\text{kjo:}/\text{kjo:}$ (according to
P. kjo: is literary) bkyag (G. and R. 'khyog),
skyog (G. and R. khyogs) lift up (door-curtain,
etc.); $\text{ta:}/\text{tha:}$, $\text{to:}/\text{tho:}$ (also $\text{ta:}/\text{tha:}$)
btags, thog weave; $\text{tsa:}/\text{tsha:}$, tso: btsags,
tshogs sieve; da: , do: ⁽²⁾ ldag, ldogs lick; ta: ,
 to: btags, thogs fasten

III. n-Piece (nP) ($\bar{r}P$: r; $\bar{r}P$: 10)

$\bar{r}P$: nä: gnang give, grant; zä: (2) brdzangs export;
 sä: bsangs purify; sä: bsrangs straighten

¹The form nza: has also been observed, but is taken to be a spelling pronunciation

\bar{r}/rP : **tā:**, **t5:** btang, gtong send; **kjā:**, **kj5:**
brkyangs, rkyong stretch; **kā:**, **kā:** (also
k5:) bskangs, skong fill; **lā:**, **lā:** (also
l5:) lift up; **lā:**, **l5:** (2) lang, long get up;
bā:, **b5:** sbang, sbong soak; **d3ā:**, **d35:** (2)
sbyangs, sbyongs practise; **pā:**, **p5:** (2)
myangs, myong taste; **fā:**, **fā:** (also **f5:**) (2)
bzhengs get up; **pā:**, **p5:** spangs, spong
renounce; **phā:**, **ph5:** 'phangs, 'phong throw

IV.d-Piece (dP) ($\bar{r}P$: 0; \bar{r}/rP : 7)

\bar{r}/rP : **trε:**, **trø:** spod, sprod give; **fε:**, **fø:** bshad,
shod describe; **tjε:**, **tjø:** bcad, chod cut; **dε:**,
dø: (2) bsdad, sdod stay; **trε:**, **trø:** 'phrad
find; **fε:**, **fø:** shad, shod comb; **sε:**, **sø:**
(also **sε:**) bsad, sod kill

V.n-Piece (nP) ($\bar{r}P$: 3; \bar{r}/rP : 2)

$\bar{r}P$: **lε:** (2) len take; **thε:** then pull; **drε:** (2)
'dren pull

\bar{r}/rP : **tε:**, **tε:** (also **tø:**) bstan, ston show; **pε:**, **pø:**
(2) nyan, nyon listen

VI.b-Piece (bP) ($\bar{r}P$: 10; \bar{r}/rP : 1)

$\bar{r}P$: **jɤp/gjɤp** (2) rgyab shut, etc.; **lɤp** slab teach;
lɤp (2) tell; **tsɤp** btsab mince; **sɤp** bsab repay;
jɤp g.yab wave; **phɤp** (2) babs descend; **kɤp** bkab

hide; kjɤp bskyabs protect; trɤp khrebs
dance

\bar{r}/rP : tɤp, tɤp (also thɔp) 'deb/btab, thob sow

With the single exception of 'deb/btab
all bP Verbs have only the one ($\bar{r}P$) form;
and, moreover, the rP form of that Verb seems
less usual than the $\bar{r}P$.

VII.m-Piece (mP) ($\bar{r}P$: 1; \bar{r}/rP : 3)

$\bar{r}P$: tham 'thams seize

\bar{r}/rP : kam, kam (also kɔm) bskams, skom dry; dɔm,
dɔm bsdams, sdom tie; tsam, tsɔm brtsams,
rtsom compose

VIII:r-Piece (rP) ($\bar{r}P$: 0; \bar{r}/rP : (f) 11, (\bar{f}) 4)

\bar{r}/rP : (f) ce:/kɤ:, ce:/kɤ: (also ce:/kɤ:) bskya,
skyol conduct; gɤ:/ɤ:, gɤ:/ɤ:
(occasionally also gɤ:/ɤ:, but this rather
literary) (2) rgyal, rgyal defeat; dɤ:,
dɤ:/dɤ: (2) mjal meet; tshe:, tshe:/tshe:
(phyag) 'tshal salute; gɤ:, gɤ: (2) bgad,
dgod laugh.

The following Verbs have been observed only
in forms consistent with either the g or the r
Piece; but, since -al is generally a reliable
indication of the possibility of a form in -er,

which provides a rP criterion, they have been

provisionally classified as rP: **tre:**, **trø:**

(There (also **tre:**) bkrāl, krol explain; **che:/kʲe:**,

1. khø: (occasionally also **che:/kʲe:**) khal/'khe

spin; **ne:**, **nø:** (occasionally also **ne:**) bsnyal,

snjol lay down; **ne:**, **nø:** (2) nyal, nyol sleep;

tse:/tshē:, **tse:/tshø:** (occasionally also

tse:/tshē:) 'tshol, tshol look for; **kje:**, **kø:**

(also **gø:** (2)) bkal, khol load

(f) **tʃa:**, **tʃø:** bcar visit; **pa:**, **pø:** spar, spor

raise; **ʃa:**, **ʃø:** (2) bzhar shave; **ja:**, **jø:**

(2), g.yar, g.yor borrow

¹Each Verb is given, where possible, in the phonetic form in which it occurs in the Verbal Noun in ga (Participle Particle, 212131112, 122; it is followed by a disyllable form, usually a Noun, that provides a criterion for classifying it as rP, mP, or bP.

Tone-8-3ord Verbs are followed by '(2)P'.

APPENDIX VI

INITIAL SYSTEM: nP, mP, AND bP VERBS

(There are no gP Verbs; zP Verbs have been omitted)

I. n-Piece Verbs¹

phyr- also, but in a more literary style, **byr-** (2)),
tʃhʌmby: phyag-'bul salutation; **phar-**, **tsamba:**
rtsa-'phar pulse-beat; **bar-** (2), **mamba:** me-'bar
 fire-lighting; **pi:-**, **ʃʌmby:** zhwa-'bud doffing the hat;
du- (2), **tshondu** tshogs-'du assembly; **de:-** (2),
dʒende: rjes-'ded pursuit; **də:-** (2), **thundy:** thugs-'dod
 wish; **daŋ-** (2), **khəndā:** gos-ldang dress-length; **du:**
 (2), **mindu:** mi-'dug are not;
kyr-, **ʃʌmgy:** zhabs-bskul [?] [? error for zhabs-'gul;
gy:- (2) move, shake]; **khər-**, **tryngə:** 'phul-'khor
 magic wheel; **gje:-** (2), **ʃʌmjɛ:** rgyab-'gal contrary;
gor- (2), **thungə:** thugs-'gor delay; **ga:-** (2), **nəŋga**
gnad-'gag importance; **gjur-** (2), **sʌŋgju:** gsar-'gyur news
tʃug-, **cəmdzu:** skyabs-'jug favour; **dʒa:-** (2),
dɛndʒa bde-'jag peace; **dʒər-** (2), **tʃhəndʒə:** phyag-'byor
 acquisition;

¹Each Verb is given, where possible, in the phonetic form in which it occurs in the Verbal Noun in ba (Nominalizing Particle, 212131112, 1a); it is followed by a disyllabic form, usually a Noun, that provides a criterion for classifying it as nP, mP, or bP.

Tone-2-Word Verbs are followed by '(2)'.

truḡ-, maṇḍru: dmag-'khrug war; dro- (2),
 tʃhundru chu-'gro drain; tri:- (2), kaṇḍri bka'-'dri
 question; dre:- (2), gʃyṇḍri rgyab-'dre quarrel;
 ziṇ- (2), truṇzi: 'khrug-'dzing quarrel; zom- (2),
 ʃenzom (tshogs-'du) rgyas-'dzom national assembly;
 zaḡ- (2), kjenza skas-'dzeg ladder; tsuḡ- (occasionally)
 also zuḡ- (2)), goenzu: mgo-'dzug beginning;

II. m-Piece Verbs

thym-, khaṇḍy: kha-mthun unanimity; dy:- (2)
 (also thy:-), draṇḍy: dgra-'dul subjugation;
 tʃhø:-, tʃhaṇḍzø: ja-mchod libation of tea;
 (the form ze:-/mze:, e.g. ze:dʒi: mdzad-chen festival,
 *umze: dbu-mdzad head tailor, has been excluded on the
 grounds that as a Verb mdzad is confined to the literary
 language);

III. b-Piece Verbs

ta:-, gopta mgo-btags protection; duṇ- (2),
 paḇduṇø nya-rdung-ba fisherman; ta-, sopte bzo-bla
 appearance;
 tʃe:-, saptʃe:/sabdʒe: sa-bcad division of work;
 troḡ-, goptro:/gobdro: mgo-dkrog upset; tri:- (2)
 laḇri:bø lha-bris-pa painter;
 tsuḡ-, laḇtsu:/laḇzu: lha-btsug [? setting up an
 image];

ne:-, **kəmpe:bə** ko-mnyed-pa tanner; **no-**, **chimpo:**
khyi-smyo[-ba] mad dog;

ja:- (2), **tʃhabja** cha-bzhag reliance; **ʃɛ:-**,
tʃhupje:/tʃhubje: chu-bshal washing; **sim-** (2),
ɲapsimbe nya-zin-pa fisherman; **sə-** (2), **trapsə:**
khra-bzo-ba jeweller; **su-**, **tapsu** rta-bsu mounted
 reception/escort; (**ra**) **si-** (2), **ɲapse:** ra-bzi-ba
 drunkard; **ʃɔ-**, **tʃhubʃø:** chu-bshos [? water poured out,
 ? semen].

APPENDIX VII

h-h VERBS

Two-form (h, h̄) Verbs

In addition to the three examples of Verbs with both a h (Intransitive) and a h̄ (Transitive) form given at pp. 631-2, the following Verbs have been recorded and are exhaustive for the material. The h̄ form is given at (i) and the h at (ii).

i. <u>ky:gydu:</u>	<u>bskol-gyi-'dug</u>	he is boiling (it);
ii. <u>khy:gydu:</u>	<u>khoh-gyi-'dug</u>	it is boiling.
i. <u>korere</u>	<u>skor-re-red</u>	he turned it;
ii. <u>khorere</u>	<u>'khor-re-red</u>	it got turned.
i. <u>tʃɛ:sɔ:</u>	<u>bcad-song</u>	he cut it;
ii. <u>tʃhɛ:sɔ:</u>	<u>chad-song</u>	it got cut.
i. <u>parere</u>	<u>spar-ra-red</u>	he raised it;
ii. <u>pharere</u>	<u>phar-re-red</u>	it rose.
i. <u>pe:gidu:</u>	<u>spel-gyi-'dug</u>	he spreads (e.g. customs);
ii. <u>phe:gidu:</u>	<u>'phel-gyi-'dug</u>	they (e.g. customs) spread.
i. <u>torere</u>	<u>gtor-ra-red</u>	he destroyed it;
ii. <u>thorere</u>	<u>'thor-ra-red</u>	it got destroyed.
i. <u>tombere</u>	<u>bton-pa-red</u>	he drove him out;
ii. <u>thombere</u>	<u>thon-pa-red</u>	he went out.

To these R. wished to add:

- i. tʃe:sʃ: he opened it;
 ii. tʃhesʃ: phye-song it came open.
 but examples such as tʃhigidu:, phye-gi-'dug, 'he opens it',
tʃhe tʃho:gidu:, phye chog-gi-'dug, 'he is allowed to open
 it', sge-khung phye (tʃhe:), 'open the window' (G. and R.),
 all make it clear that the h form certainly has a Transitive
 function as far as this Verb is concerned.

h and h̄ in Free Variation

In addition the following Verbs appear to have h and h̄ forms in free variation:

- | | | |
|-----------------------|------------------------|---------------|
| i. <u>tsʌ:gidu:</u> | <u>btsags-kyi-'dug</u> | he strains |
| ii. <u>tshʌ:gidu:</u> | <u>tshad-gi-'dug</u> | |
| i. <u>tsɛ:sʃ:</u> | <u>'tshol-song</u> | he looked for |
| ii. <u>tshɛ:sʃ:</u> | | |
| i. <u>tsɐ:bere</u> | <u>btsos-pa-red</u> | he cooked |
| ii. <u>tshɐ:bere</u> | <u>'tshod-pa-red</u> | |
| i. <u>tsɔŋbere</u> | <u>btsongs-pa-red</u> | he sold |
| ii. <u>tshɔŋbere</u> | <u>'tshong-ba-red</u> | |
| i. <u>tsimgidu:</u> | <u>btsems-kyi-'dug</u> | he sews |
| ii. <u>tshimgidu:</u> | <u>'tshem-gyi-'dug</u> | |
| i. <u>try:bere</u> | <u>bkrus-pa-red</u> | he washed |
| ii. <u>try:bere</u> | <u>'khrud-pa-red</u> | |

¹ Rarely also tsɛ:sʃ:, tshɛ:sʃ:.

Abbreviations

Adj.	Adjective, Adjectival
aff.	affrication
ag.	agentive
Alt. Int.	Alternative Interrogative
apic.	apicality
apico.-alv.	apico-alveolarity
App.	Appendix
C.	Compositor
c.	common
Cl.	Clausal
Condit.	Conditional
cor.	coronality
Corr. Int.	Corroborative Interrogative
dent.	dentality
dorso-pal.	dorso-palatality
dur.	duration
Exclam.	Exclamatory
fric.	friction
ft	Fast Tempo
G. and R.	Gould and Richardson (App. I, p. 676)
glot.	glottality
HJAS	<u>Harvard Journal of Asiatic Studies</u>
I.P.A.	International Phonetic Association
Junc.	Juncture

lab.	labiality
liq.	liquidity
lit.	literally
loc.	locative
LT	Lhasa Tibetan
N.	Noun
nas.	nasality
Nom.	Nominal
Nomzd.-Vb.	Nominalized-Verb
Nomzg.	Nominalizing
occ.	occlusion
OUP	Oxford University Press
P.	Penjor Phuntshog (<u>dpal-'byor phun-tshogs</u>) Piece; e.g. r Piece, z Piece
pal.	palatality
Part.	Particle
plos.	plosion
plu.	plural
R.	Rinzin Wangpo (<u>rig-'dzin dbang-po</u>)
sib.	sibilant
Spec. Int.	Special Interrogative
st	Slow Tempo
syll.	syllabicity
TPS	<u>Transactions of the Philological Society</u>

Vb.	Verb
Vbl.	Verbal
vel.	velarity
voicels.	voicelessness
vow.	vowel
1W	Tone-One Word
2W	Tone-Two Word

ACKNOWLEDGEMENTS

Since this thesis is an analysis of the speech of one man, Rinzin Wangpo, it is proper that my first acknowledgement should go to him as my informant. Ours was not always an easy relationship: when he first arrived in this country from Lhasa he was in a poor state of health, having suffered constantly from sea-sickness during the six-week voyage from Calcutta, where he had, in addition, been infected with an unsightly skin-disease; he spoke no English, and the little Tibetan that I had managed to learn before his arrival was barely enough for me to be able to understand his simplest requests, or to try and explain to him such features of life in this country in 1948-9 as ration-books; he was disappointed at not being put in charge of a class of young pupils learning texts by rote in the Tibetan monastic tradition of that time, and at having to put up with a single pupil, who wished to dictate unfamiliar teaching methods to him; and, from my point of view, he was my first informant: it was on him that I first learnt the technique of dealing with informants, and I had not then developed the patience and forbearance that come with experience. From such a relationship it was, perhaps, surprising that I managed to gain as much material as I in fact did; and I owe a great deal to the sentences and

texts of Bell ('Grammar of Colloquial Tibetan'), and of Sir Basil Gould and H.E. Richardson ('Tibetan Sentences', etc.), which I was able to use from the outset.

To my supervisor, the late Prof. J.R. Firth, I owe the technique of analysis that I have used throughout the thesis, prosodic analysis. Firth's view of prosodic analysis changed somewhat over the years, from its promulgation in 'Sounds and Prosodies' ('T.P.S., 1948', 1949) to the year of his death, in 1960; but I remained in touch with him after his retirement, in 1956, and, to the best of my knowledge, my method reflects the advances that he made over the years, especially in precision.

In particular I owe to him the concept of 'commutation system', through which the functional value of a particular phonological term is strictly related to the number of terms in the system to which it belongs, in contrast with the overall values, and consequent distributional statement of terms, that is to be found in, for example, phonemic analysis. The other leading concept that I owe to him is that of selecting phonetic data for phonological statement on syntagmatic rather than on paradigmatic grounds. Both these principles I have applied strictly throughout the thesis. I have found them especially useful in reconciling variant phonetic forms

of particular lexical items with each other, and in summarizing all such variant forms in a phonological formula for each lexical item.

The last occasion on which I discussed thesis material with Prof. Firth was in 1960, shortly before his death, when he agreed with my treating the lip-rounded form (imperative) of ə Verbs as phonologically distinct from the phonetically identical (lip-rounded) forms of w Verbs (2121323); but formal supervision had not continued beyond the year of his retirement (1956).

Even though my formal supervision was at an end, I was able to rely, for advice and criticism, on the generosity of Prof. N.C. Scott, who subjected some of the material to a searching scrutiny that extended even to details of punctuation; it was to meet his criticisms that I was obliged to re-cast the whole of the Tone statement (21212). I am well aware that such careful criticism reflects a very considerable contribution in time and energy that he was under no formal obligation to make, and my gratitude is all the greater.

THE PHONOLOGY OF THE GRAMMATICAL CONSTITUENTS
OF VERBAL-PHRASE WORDS IN SPOKEN TIBETAN

	<u>(LHASA DIALECT)</u>	1
	Abstract	1.1
0	Introductory	2
01	Rinzin Wangpo (R.)	4
02	The Lhasa Dialect (LT)	8
03	Reading and Spelling Styles	14
031	Situational Level	15
032	Lexical Level	18
033	Grammatical Level	19
034	Phonetic and Phonological Levels	21
0341	Spelling Style	22
0342	Reading Style	23
03421	Word-initial Features	24
03422	Word-final Features	24
04	Levels of Analysis	27
05	The Grammatical Constituents of Words	29
051	Grammatical Classification of Word Constituents: Verb, Noun, Adjective, Postposition, Particle	30
052	Case for distinguishing a Particle Category	37
0521	Order of Grammatical Categories within the Word	37

0522	Inapplicability of Tonal Classification	38
1	Delimiting the Word: Inter- and Intra-verbal Junction	42
11	Interverbal Junction	45
111	Criteria statable independently of Tempo	45
1111	Word-initial Features	47
11111-4	Criteria (four)	47
11115	Glottality + Plosion	49
1112	Word-final Features	51
1113	Criteria drawn from both Syllables of the Junction	53
11131	Aperture Features	53
11132-5	Other Criteria (four)	57
112	Criteria statable only with Reference to Tempo	62
1121	Fast-Tempo Utterances	64
11211-2	Criteria (two)	64
1122	Slow-Tempo Utterances	67
11221-2	Criteria (two)	68
12	Intraverbal Junction	68
121	Criteria comprising co-articulated Features of a single Syllable	69
1211-5	Criteria (five)	69
122	Criteria comprising Sequences of Phonetic Features	77

1221-4	Criteria (four)	177
2	Grammatical and Phonological Account of Word Constituents by Type of Word	87
	(The Phrase)	93
21	Words containing Verb, and Verbal- Particle, Constituents	96
211	Grammatical Criteria	97
2111	Verb	97
21111	Flexion	97
21112	Colligation with Verbal Particle	100
211121	Negative Particle	102
211122	Interrogative Particle <u>dang</u>	103
211123	Imperative Particle <u>dang/da</u>	104
211124	Non-Sentence-final Particle <u>de'i/te/ta'i/'das/da'i</u>	105
211125	Dubitative Particle <u>gro/'gro</u>	106
211126	Imperative Particle <u>do</u>	108
211127	Other Words comprising nothing but Particles	108
211128	Verb not colligated with Verbal Particle	110
21113	Colligation with Nominalizing and Nominal Particle	110
21114	Order of Categories	113
211141	Within Clause and Sentence	113
211142	Within the Word	120

21115	Tonal Classification	124
2112	Verbal Particle	124
21121	Colligation with Verb	124
21122	Order of Categories	130
211221	Within Clause and Sentence	130
211222	Within the Word	132
21123	Tonal Classification	135
2113	Both Verb and Verbal Particle	136
2114	Nominalizing Particle	139
21141	Colligation	139
21142	Order of Categories	141
212	Phonological Analysis	143
2121	Prosodic Systems	144
21211	Utterance Prosodies: Tempo	144
21212	Word Prosodies: Tone	152
212121	Pitch Features	153
2121211	Non-Sentence-final Clause	155
21212111	Non-emphatic	162
212121111	Intonation 1	165
212121112	Intonation 2	172
21212112	Emphatic	177
212121121	Verb + Particle, or Verb, Word Prominent	178

2121211211	Intonation 1	180
2121211212	Intonation 2	181
212121122	Verb + Particle, or Verb, Word not Prominent	183
2121212	Sentence-final Clause	190
21212121	Non-emphatic	196
212121211	Group-1 Particles	198
2121212111	Intonation 1	200
2121212112	Intonation 2	214
212121212	Group-2 Particles	217
2121212121	Intonation 1	218
2121212122	Intonation 2	232
21212122	Emphatic Intonation	241
212121221	Relevant Word Prominent	243
2121212211	Similar Patterns to those of Non-Emphatic Clause	243
2121212212	Exclusively Emphatic-Intonation Patterns	246
212121222	Relevant Word not Prominent	252
2121212221	Intonation 1	253
2121212222	Intonation 2	258
2121213	Verb Word	263
21212131	Non-Emphatic	263
21212132	Emphatic	265
212121321	Relevant Word Prominent	266
212121322	Relevant Word not Prominent	268

2121214	Particle Word	269
2121215	Verb + Nominalizing Particle (+ Nominal-Phrase-Particle) Word	270
21212151	Non-Emphatic Intonation	273
212121511	Group-1 Particle	274
212121512	Group-2 Particle	278
21212152	Emphatic Intonation	283
212122	Word-Initial Features	287
21213	Piece Prosodies	301
212131	Associated Vowel-quality, vowel- duration, and Consonant Features	302
2121311	Quality	303
21213111	Main-Verb and Auxiliary-Verb Piece	306
212131111	Monosyllabic Piece (Verb Word)	308
212131112	Disyllabic Piece (Verb + Particle Word; Intraverbal Junction)	313
21213112	Verb-Complement, and Particle, Piece	351
212131121	Monosyllabic Piece	354
212131122	Disyllabic Piece	356
21213113	Particle Piece	374
212131131	Exemplifiable in Intraverbal Junction	376
2121311311	Exemplifiable in both Inter- and Intra-verbal Junction	376
2121311312	Exemplifiable in Intra-verbal Junction only	380
212131132	Exemplifiable in Inter-verbal Junction only	381

2121312	Quantity System	388
21213121	Monosyllabic Piece	390
21213122	Disyllabic Piece	392
21213123	Duration (and Vowel Quality) of sP Verb forms	409
2121313	Initial System	413
21213131	n	419
21213132	z	434
21213133	m	475
21213134	b	479
21213135	g	491
21213136	Summary	495
2121314	Juncture System	501
i.	p	510
ii.	t	511
iii.	k	513
iv.	c	515
v.	tr	517
vi.	ts	519
vii.	n	520
viii.	m	521
ix.	l	523
x.	s	524
xi.	q	525

21213141	The Juncture System and Phonetic Variation in the first Syllable	526
212132	Prosodic Systems dealing with Labial and associated Features	534
2121321	Labialization	534
21213211	Vb. + Part.	536
212132111	y	538
212132112	w	542
212132113	ə	548
21213212	Part.	567
2121322	Fronting (f, \bar{f})	572
2121323	Rounding (r, \bar{r})	577
2121324	Palatalization (y, \bar{y})	583
212133	Prosodic Systems dealing with Vowel- closure and associated Features:	593
	Closure	593
2121331	Main/Aux. Vb. + Part.	595
2121332	(Vb. (Comp) + Part., or Part.	615
212134	Prosodic Systems dealing with Voice voicelessness, and associated syllable-initial features: Aspiration	625
2121341	Interverbal Junction	627
2121342	Intraverbal Junction	635
2122	Phonematic systems	647
21221	C- systems	648

21222	V systems	657
21223	-C systems	659
21224	Comment	659
Appendix I	Transliteration	665
	Phonetic Transcription	669
	Translation	671
" II	LT Texts	672
	Texts from unscripted recordings	672
	Difficulties encountered in dealing with the texts	677
" III	Additional tonal and intonational examples	682
" IV	zP Verbs: Quantity	705
	dP-Verb Syllables	707
" V	eP Verbs: $\bar{r}R$, $r/\bar{r}P$	712
" VI	Initial System: nP, mP, and bP Verbs	717
" VII	$h-\bar{h}$ Verbs	720
Abbreviations		722
Acknowledgements		725
Index		728

Main section headings and list of phonetic symbols

Section headings	page
Abstract	1.1
Rinzit Wangpo	4
The Lhasa dialect	8
Reading and Spelling styles	14
Levels of analysis, situational, lexical, etc.	15
The Grammatical Constituents of Words	29
Delimiting the Word: Junction	42
Interverbal Junction	45
Intraverbal Junction	68
Grammatical criteria: Verb	97
Verbal Particle	124
Nominalizing Particle	139
Utterance prosodies: Tempo	144
Word prosodies: Tone	152
Non-sentence-final Clause	155
Sentence-final Clause	190
Piece prosodies: Quality	303
Quantity	388
Initial	413
Juncture	501
Labialization	534
Fronting	572
Rounding	577
Palatalization	583

Closure	593
Aspiration	625
Phonematic systems	647
C-	648
V	657
-C	659
Appendix I	665
II	672
III	682
IV	705
V	712
VI	717
VII	720
Abbreviations	722
Acknowledgements	725
Index	728

Phonetic symbols (see also Appendix I, p. 669)

Consonant

plosive	p t t̃ t̃ c k	t̃ k p̃ t̃ k̃	P
	b a d̃ d̃ ɟ g	d̃ ɟ̃ ɟ̃ p̃ q̃ ɟ̃ ɟ̃	b̃ q̃ ɟ̃ ɟ̃
liquid	m n ñ ñ ñ ñ	l m̃ ñ ñ ñ l̃ m̃ ñ ñ	ɟ̃/l̃
		l̃	N L
affricate	ts tr tɟ tʃ tɕ	t̃s̃ t̃r̃	t̃s̃ t̃r̃ t̃ɟ̃
	dz dr dʒ dʒ	d̃r̃ d̃ʒ̃	q̃z̃ q̃r̃ q̃ʒ̃ d̃z̃ d̃ɟ̃ d̃ʒ̃
fricative	ɸ s r	ʃ ɕ x s̃ r̃	ɕ
	β z r̃ ɹ z̃ ʒ ʁ z̃ ɹ̃	ʒ̃ ɹ̃	ʃ̃
modifiers	' (p' t' k' ɸ' b' g')	(p̃ q̃ m̃ ñ ɟ̃ ɟ̃ z̃ ɹ̃ ʁ̃)	
<u>vowel</u>			V

vowel

i y e ø ε a a ɔ ʌ o ɣ u
 i: y: e: ø: ε: a: a: ɔ: ʌ: o: u:
 ī ŷ ǿ ē ǣ ǣ ǿ ã ü ǻ ǿ ã
 i ȳ ɛ ɔ ʌ ɣ u
 i a ɔ ʌ o u ə
 i y- e- ø- ε a
 i ø ɔ u
 ɣ ø
 ø ø a ɣ
 j ɥ w
 ɔ

pitch

----- pause -----